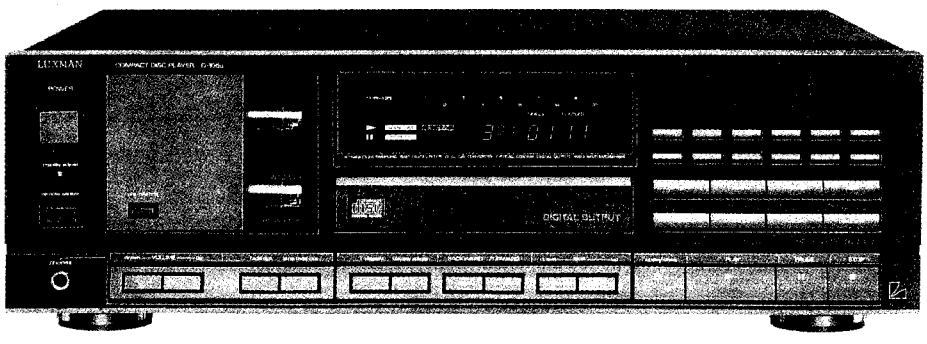
SERVICE MANUAL

Compact Disc Player

D-105U



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Note : ● : For Japanese model only (JA)
▲ : For General Foreign model only (EK)
Others : Common

◆ : For American model only (UZ)
■ : For West German model only (AD)
◇ : For Canadian model only (UQ)
□ : For England model only (AG)

Specifications

CD SECTION

Systems	Optical (Compact Disc System)
Quantizing Bit Number	16 Bit Linear System
Channels	2 Channels, Stereo
Pick-up	Semiconductor Laser Pick-up
Output Voltage	2.1V±1dB
Frequency Response	5~20kHz±1.6dB
T.H.D (1KHz)	0.12%
S/N Ratio	96dB
Dynamic Range	87dB
Separation (1KHz)	82dB
Head-phone Output Voltage (1kHz, 10dB/8ohm)	130mV±1dB
Power Supply	AC100V, 50/60Hz (JA Model Only) AC120/220/240V, 50Hz (EK/AD/AG Model Only) AC120V, 60Hz (UZ/UQ Model Only)
Power Consumption	25W
Semiconductors	25IC's, 26 Transistors, 40 Diodes, 2 Zener Diodes, 2 Vacume Tubes (AD/UZ/AG/UQ Model Only) 25IC's, 26 Transistors, 39 Diodes, 2 Zener Diodes, 2 Vacume Tubes (JA/EK Model Only)
Dimension (W×H×D)	438×147×342mm
Weight	8.5kg

COMPACT DISC

Track Pitch	1.6μm
Modulation Frequency	44.1MHz
Transfer Rate	4.3218MBit/sec
Dimension	120×1.2mm

Parts Locations and Disassembly Instructions

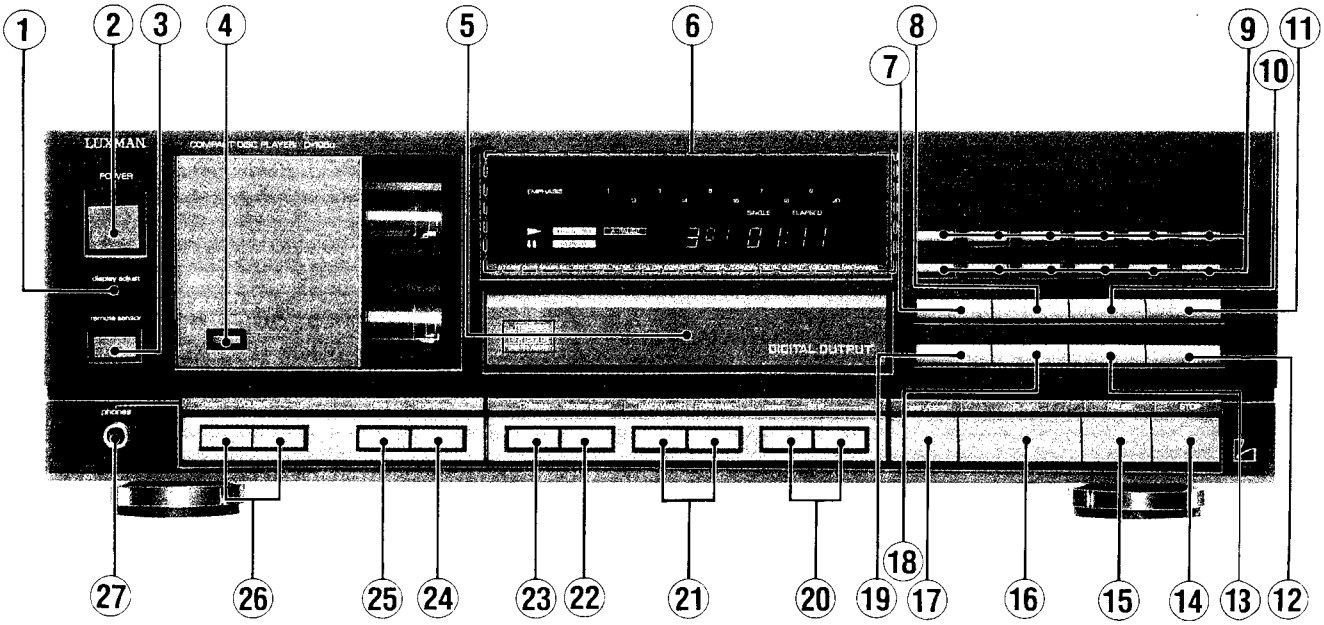


Figure 1 〈1図〉

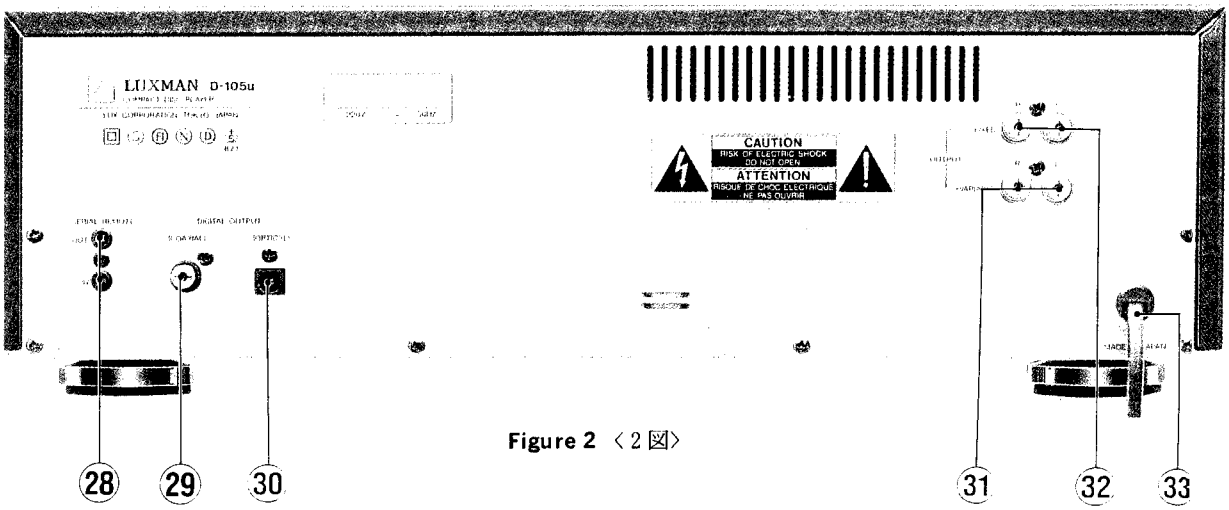


Figure 2 〈2図〉

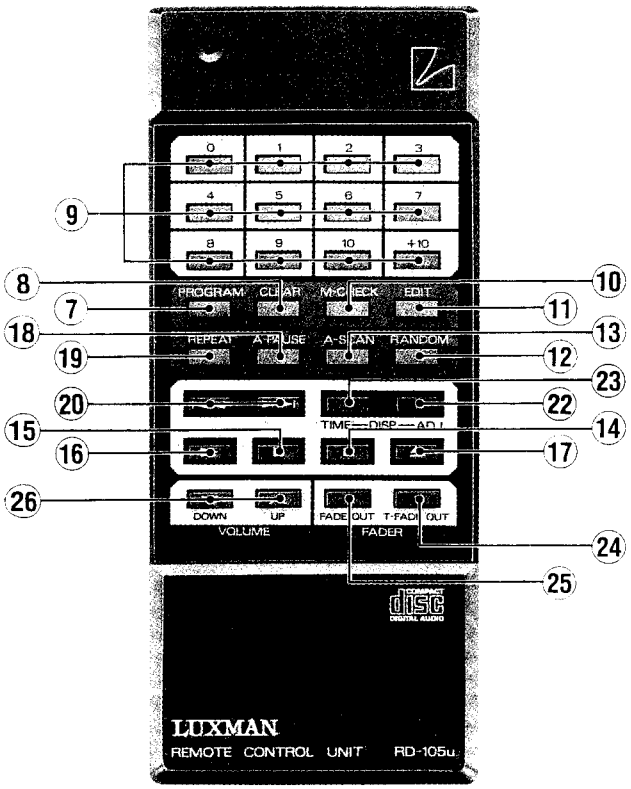


Figure 3 〈3図〉

① "display adjust" indicator
② POWER button
③ "remote sensor"
④ "pre-heating" button
⑤ Disc tray
⑥ Display
⑦ "program" button
⑧ "clear" button
⑨ Number buttons (0 to 10 and +10)
⑩ "M-Check" (memory check button)
⑪ "edit" button
⑫ "random" button
⑬ "A-Scan" (auto scan) button
⑭ STOP button (■)
⑮ PAUSE button (II)
⑯ PLAY button (▶)
⑰ "open/close" button
⑱ "A-pause" (auto pouse) button
⑲ "repeat" button
⑳ SKIPUP/SKIP DOWN buttons (▶▶I/I◀◀)
㉑ FORWARD/BACKWARD buttons (▶▶/◀◀)
㉒ DISPLAY ADJUST button
㉓ "T-display" button
㉔ TIME FADE-OUT button
㉕ FADE-OUT button
㉖ VOLUME "up/down" buttons (△ ▽)
㉗ "phones" jack
㉘ SERIAL REMOTE IN/OUT jacks
㉙ DIGITAL OUTPUT (COAX.) jack
㉚ DIGITAL OUTPUT (OPT.) jack
㉛ VARIABLE OUTPUT R/L jack
㉜ FIXED OUTPUT R/L jack
㉝ Power cord

〈Cabinet of Section〉

1. Removal of Top Cover

(1) Remove ten screws marked "●" as shown Figure 4.

(2) Pull out the top cover in the direction of the arrow as shown in Figure 4.

1. 上蓋の外し方

(1) 10本のネジ"●"を外します。(4図参照)

(2) 上蓋を矢印の方向に引き上げて外します。(4図参照)

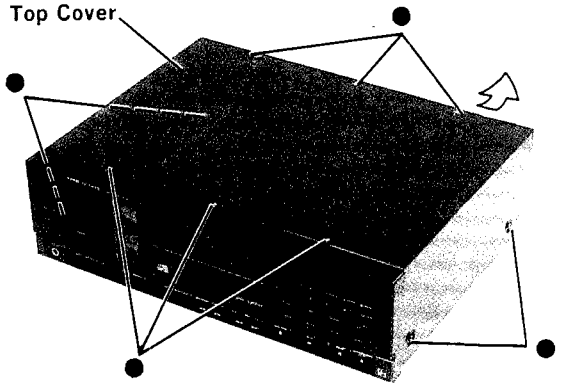


Figure 4 〈4図〉

2. Removal of the Front Panel

(1) After removing the Top Cover, open the Disk Tray and pull the Tray Panel in the direction as shown in Figure 5.

(2) Remove the Power switch knob as shown in Figure 5.

(3) Remove the solder (A) as shown in Figure 6.
Note: Be careful not to damage the parallel wires (29P) when removing the solder (A).

(4) Remove the three screws marked "○" as shown in Figure 7.

(5) Remove the hook (A) located in the two places as shown in Figure 6.

(6) Disconnect all wires connected to the following P.C. Boards: FL/Keyboard P.C. Board, Tube P.C. Board (1)/(2), Remote P.C. Board, Pre-Heat SW. P.C. Board, Head-Phone Jack P.C. Board.

(7) The Front Panel can now be removed with the following P.C. Boards in place: FL/Keyboard P.C. Board, Tube P.C. Board (1)/(2), Remote P.C. Board, Pre-Heat SW. P.C. Board, Head-Phone Jack P.C. Board, Fade P.C. Board.

2. フロントパネルの外し方

(1) 上蓋を外した後，ディスクトレイをオープンし，トレイパネルを矢印の方向に外します。(5図参照)

(2) パワースイッチツマミを外します。(5図参照)

(3) 半田(A)を外します。(6図参照)
注) 半田(A)を外す際，パラレルワイヤー (29P) が損傷し易いので十分注意して下さい。

(4) 3本のネジ (○印) を外します。(7図参照)

(5) 2箇所のフック(A)を外します。(6図参照)

(6) FL/Key Board 基板・Tube 基板(1)／(2)・Remote 基板・Pre-Heat SW 基板・Head-Phone Jack 基板以上の基板からつながる全てのワイヤーを外します。

(7) 以上でフロントパネルは FL/Key Board 基板 Tube 基板(1)／(2)・Remote 基板・Pre-Heat SW 基板・Head-Phone Jack 基板・Fade 基板の各基板が付いた状態で外すことができます。

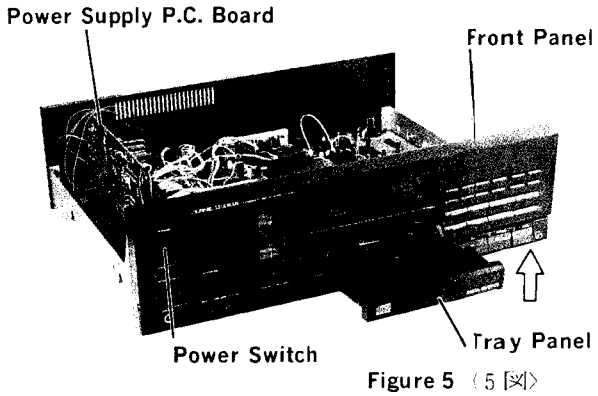


Figure 5 〈5図〉

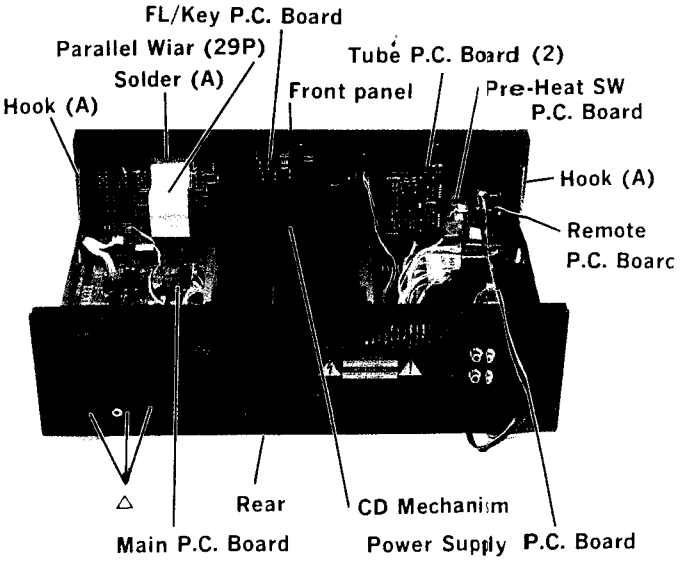


Figure 6 〈6図〉

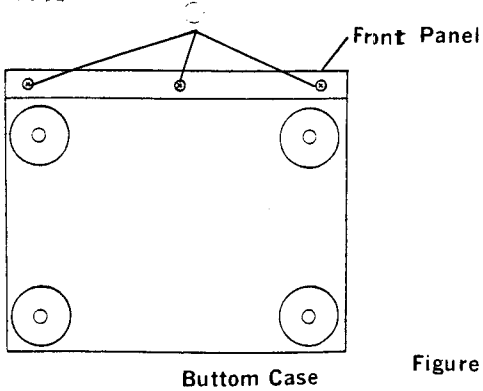


Figure 7 〈7図〉

3. Removal of the CD mechanism

(1) After removing the Front Panel remove the five screws marked "×" as shown in Figure 8.
(2) Disconnect all wires connected to the CD mechanism.
(3) the CD mechanism can now be removed.

3. CD メカニズムの外し方

(1) フロントパネルを外した後，5本のネジ（×印）を外します。（8図参照）
(2) CD メカニズムにつながる全てのワイヤーを外します。
(3) 以上で CD メカニズムは外れます。

4. Removal of the Main P.C. Board

(1) After removing the Top Cover, remove the seven screws marked "△" as shown in Figures 6 and 8.
(2) Hold down on "A" (see Fig. 9) and remove P.C. Board support (C) as shown in Figure 8.
(3) Disconnect all wires connected to the Main P.C. Board.
(4) The Main P.C. Board can now be removed.

4. MAIN 基板の外し方

(1) 上蓋を外した後，7本のネジ（△印）を外します。（6，8図参照）
(2) A部を押しながら（9図参照）基板サポート(C)を外します。（8図参照）
(3) MAIN 基板につながる全てのワイヤーを外します。
(4) 以上で MAIN 基板は外れます。

5. Removal of the FL/Keyboard P.C. Board

(1) After removing the Front Panel, remove the two screws marked "☆" as in Figure 10.
(2) Remove the hook (D) in the fifteen places as shown in Figure 10.
(3) Disconnect the 6P connector connected to the Fade P.C. Board.
(4) The FL/Keyboard P.C. Board can now be removed.

5. FL/Keyboard 基板の外し方

(1) フロントパネルを外した後2本のネジ（☆印）を外します。(10図参照)
(2) 15箇所のフック(D)を外します。(10図参照)
(3) Fade 基板につながる1つのコネクター (6P) を外します。
(4) 以上で FL/Keyboard 基板は外れます。

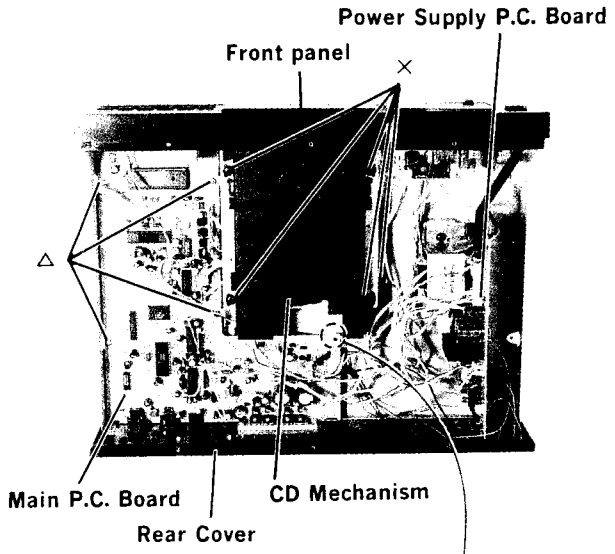


Figure 8 〈8図〉

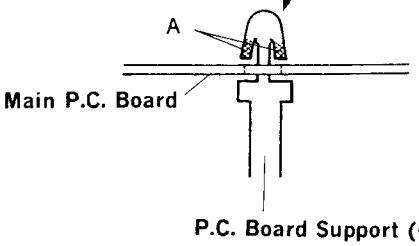


Figure 9 〈9図〉

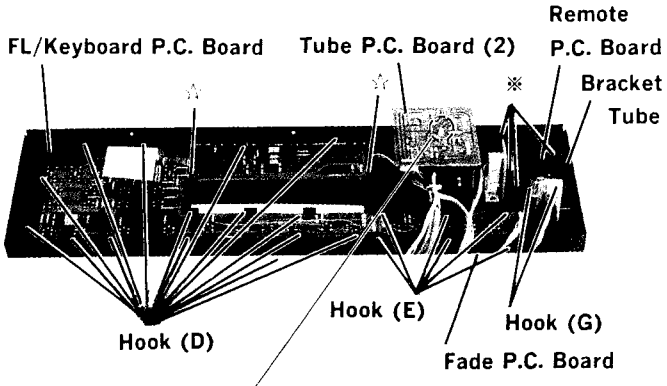


Figure 10 〈10図〉

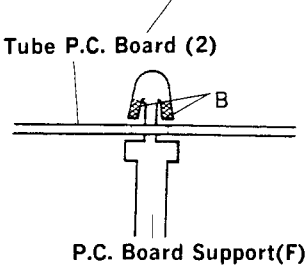


Figure 11 〈11図〉

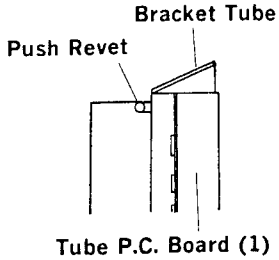


Figure 12 〈12図〉

6. Removal of the Fade P.C. Board

(1) After removing the Front Panel, remove the hook (E) in the six places as shown in Figure 10.
(2) Disconnect the 6P connector connected to the FL/Keyboard P.C. Board.
(3) The Fade P.C. Board can now be removed.

6. Fade 基板の外し方

(1) フロントパネルを外した後，6箇所のフック(E)を外します。(10図参照)
(2) FL/Keyboard 基板につながる1つのコネクター (6P) を外します。
(3) 以上で Fade 基板は外れます。

7. Removal of the Tube P.C. Board (2)

(1) After removing the Front Panel, hold down on "B" (see Fig. 11) and remove the P.C. Board support (F) as shown in Figure 10.
(2) Disconnect the two 6P connectors connected to the Tube P.C. Board (2).
(3) The Tube P.C. Board (2) can now be removed.

7. Tube 基板(2)の外し方

(1) フロントパネルを外した後，B部分を押しながら(11図参照) 基板サポート(F)を外します。(10図参照)
(2) Tube 基板(1)につながる2つのコネクター (それぞれ6P) を引き抜きます。
(3) 以上で Tube 基板(2)は外れます。

8. Removal of the Tube P.C. Board (1)

(1) After removing the Front Panel and Tube P.C. Board (2), remove the four screws marked "＊" and the Tube retainer as shown in Figure 10.
(2) Remove the Push rivet shown in Figure 12.
(3) The Tube P.C. Board (1) can now be removed.

8. Tube 基板(1)の外し方

(1) フロントパネルと Tube 基板(2)を外した後，4本のネジ (※印) を外し，チューブ取付金具を外します。(10図参照)
(2) 1個のプッシュリベットを外します。(12図参照)
(3) 以上で Tube 基板(1)は外れます。

9. Removal of the Remote P.C. Board

(1) After removing the Tube retainer, remove the hook (G) in the two places as shown in Figure 10.
(2) The Remote P.C. Board can now be removed.

9. Remote 基板の外し方

(1) チューブ取付金具を外した後，2箇所のフック(G)を外します。(10図参照)
(2) 以上で Remote 基板は外れます。

〈CD Mechanism Section〉

1. Removal of Disc Tray

(1) Pull out the disc tray in the arrow direction by pressing slant position of the disc tray as shown in Figures 13 and 14.
(2) After disengaging one claw (A), remove the switch arm as shown in Figure 15.
(3) Spread two claws (B) toward outside at the both sides of the disc tray and draw out the disc tray as shown in Figure 14.

1．ディスクトレイの外し方

(1) ディスクトレイの斜線部分を押し，ディスクトレイを矢印方向に引き出す。(13，14図参照)
(2) 爪(A)を外し，スイッチアームを外します。(15図参照)
(3) ディスクトレイ両サイドの爪(B)を両外側に押し広げてディスクトレイを引き抜きます。(14図参照)

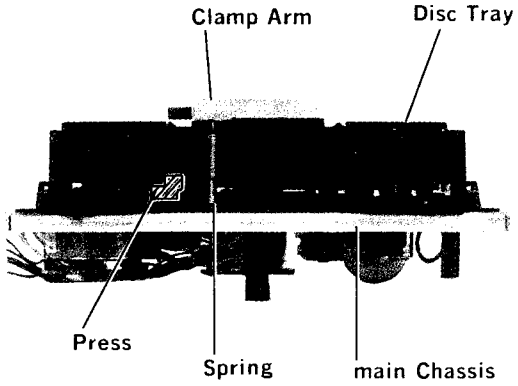


Figure 13 〈13図〉

2. Removal of Clamp Arm

(1) Remove one spring between the main chassis and the clamp arm as shown in Figure 13.
(2) After pulling out the disc tray frontward, remove the clamp arm by pressing one claw (C) as shown in Figure 14.

2．クランプアームの外し方

(1) メインシャーシとクランプアームとを止めているバネを外します。(13図参照)
(2) ディスクトレイを前面に引き出した後爪(C)を押しながらクランプアームを外します。(14図参照)

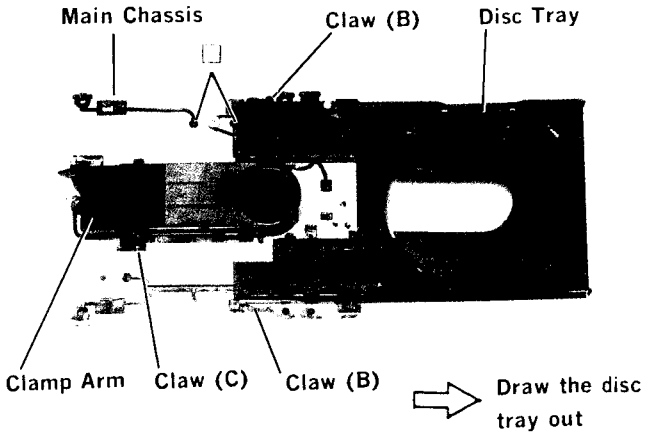


Figure 14 〈14図〉

3. Removal of Optical Pick-up Arm

(1) After removing three screws marked "○", remove the sub-chassis as shown in Figure 15.

Note: When three screws are removed, three springs (one is black) appear under the damper bush. When assembling the sub-chassis put the black spring into the place marked "☆".

(2) While pressing two claws (D) in toward pull out two shafts in the arrow direction as shown in Figure 17.

3. 光学系ピックアップの外し方

(1) 3本のネジ (○印) を外し，サブシャーシを外します。

注意) 3本のネジを外すとそれぞれのダンパーブッシュの下に3本のバネ (内1本が黒色) があります。サブシャーシ取り付け時には，黒色バネを"☆"色の部分に入れて取り付けて下さい。(15図参照)

(2) 2ケ所の爪(D)を両方共に内側に押しながら，2本のシャフトを矢印の方向に引き抜きます。(17図参照)

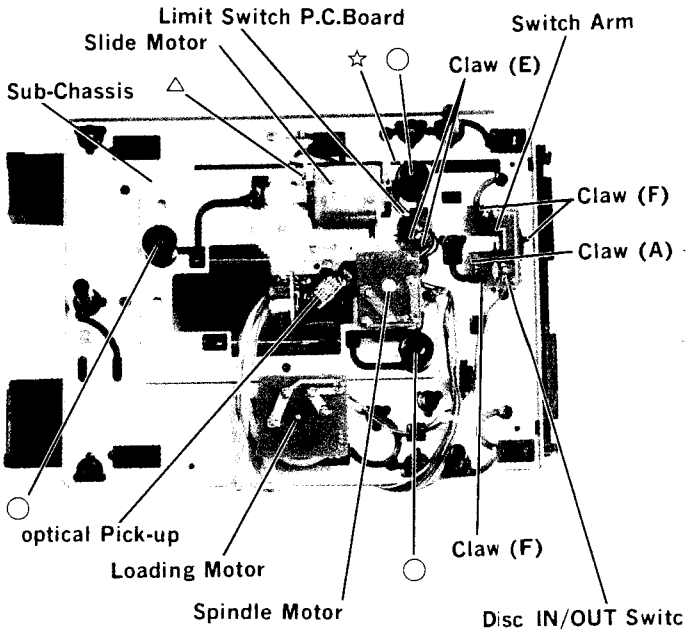


Figure 15 〈15図〉

4. Removal of Spindle Motor

(1) By grasping plastic part, lift the disc table straight up without applying pressure to metal part.

Note: For assembling the disc table, insert the disc table with pressure so that the height from the disc table top to the sub-chassis surface becomes 19.9±0.1mm as shown in Figure 18.

(2) Remove two screws marked "×" as shown in Figure 17.

4. スピンドルモーターの外し方

(1) ディスクテーブルを金属部分に負荷をかけないで樹脂の部分をつかみまっすぐ上に引き抜きます。

注意) ディスクテーブルの組立て時，サブシャーシ上面からディスクテーブルの上面までの高さ19.9±0.1mmの位置に圧入して下さい。(18図参照)

(2) 2本のネジ (×印) を外します。(17図参照)

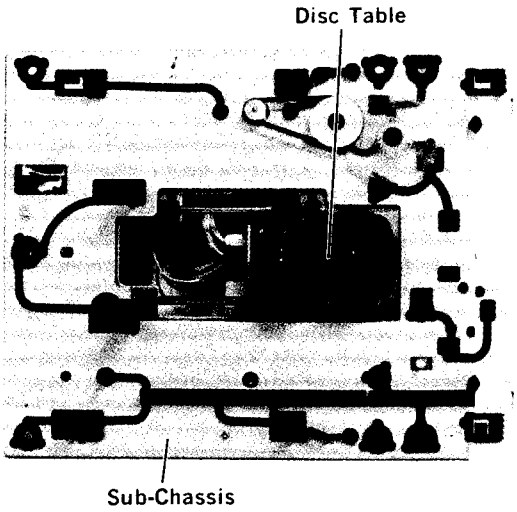


Figure 16 〈16図〉

5. Removal of Slide Motor

(1) Remove one screw marked "△" and lift up the motor as shown in Figure 15.

5. スライドモーターの外し方

(1) 1本のネジ（△印）を外し，上に持ち上げます。(15図参照)

6. Removal of Loading Motor

(1) Remove one belt and two screws marked "□" as shown in Figure 14.

6. ローディングモーターの外し方

(1) ベルトを外し，2本のネジ（□印）を外します。(14図参照)

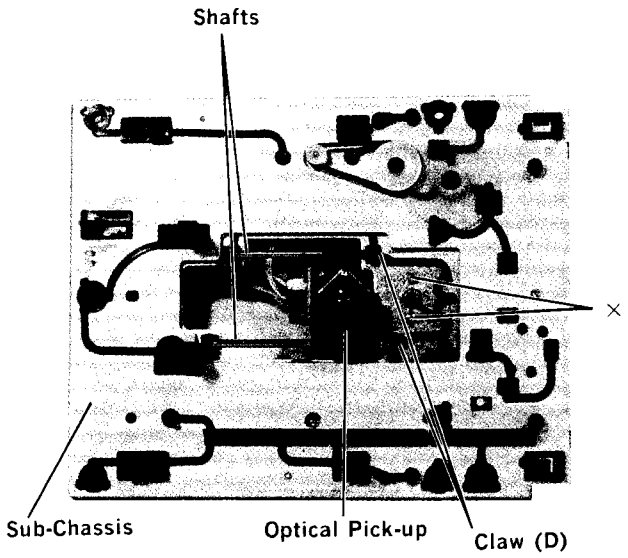


Figure 17 〈17図〉

7. Removal of Limit Switch P.C. Board

(1) Remove two claws marked "E" as shown in Figure 15.

7. リミットスイッチ基板の外し方

(1) 2ケ所の爪(E)を外します。(15図参照)

8. Removal of Disc IN/OUT Switch P.C.Board

(1) Remove three claws marked "F" as shown in Figure 15.

8. ディスク IN/OUT スイッチ基板の外し方

(1) 3ケ所の爪(F)を外します。(15図参照)

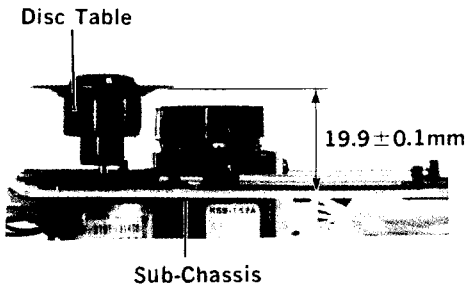


Figure 18 〈18図〉

〈Service Notes〉

1. Notes on Laser Diode Emission and Focus Search Operation Check

(1) Caution when checking Laser Diode emission.
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30cm away from the objective lens.

(2) Check of the Laser Diode And Focus Search Operation
With no disc loaded and the disc tray closed, when switching the power on, check that the operation as shown in the below Figure 19 is performed, by observing the objective lens.
①Optical pick-up moves in outer-circle and inner-circle directions.
②Laser beam emits spreadingly.
③The objective lens perform up-and-down three times.

1. レーザーダイオードおよびフォーカスサーチ動作の確認

(1) レーザーダイオードの発光確認時の注意
本機のレーザー光は，光学系ピックアップ内の対物レンズによってディスクの反射面上に焦点を結ぶように集光されています。したがって，レーザーダイオードの発光を確認する時は，対物レンズより30cm以上日を離して下さい。

(2) レーザーダイオードおよびフォーカスサーチ動作のチェック方法
ディスクを入れないでディスクトレイが閉じた状態から，POWERスイッチをONさせた時，対物レンズおよび光学系ピックアップを見て，下記の様な動作が行なわれるか確認する。(19図参照)
①光学系ピックアップが外周方向に動き，また内周方向に動く。
②レーザー光の拡散した，赤い色の光が見える。
③対物レンズの上下運動。(3回)

Remove the Clamp Arm
(See Disassembly Instruction of Clamp Arm)

クランプアームを取り除く
(クランプアームの分解方法の項参照)

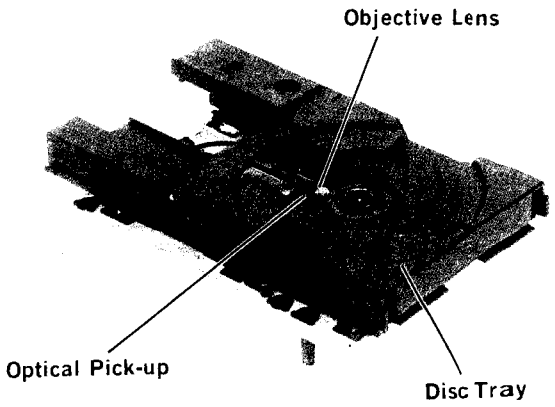


Figure 19 〈19図〉

2. Caution For Electrostatic Breakdown [Notes on Handling The Base Unit (KSS-152A)]

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc., on clothing and the human body.

The following notes are examples for reference purposes :

①Perform repair with ground ring on the hands and a conductive gum mat.

②Grasp the slide base when handling.

③When removing the pick-up arm shortcircuit by soldering as shown in the Figure 20 below and then remove the connector.

④When mounting the pick-up arm, after inserting the connector, remove the soldered short-circuiting.

Notes : For making and removing the short-circuit, be sure to use an iron with its metal part grounded or it's insulation resistance is higher than 10M ohms (DC 500V), and the tip temperature is lower than 320°C. The soldering and desoldering should be made quickly.

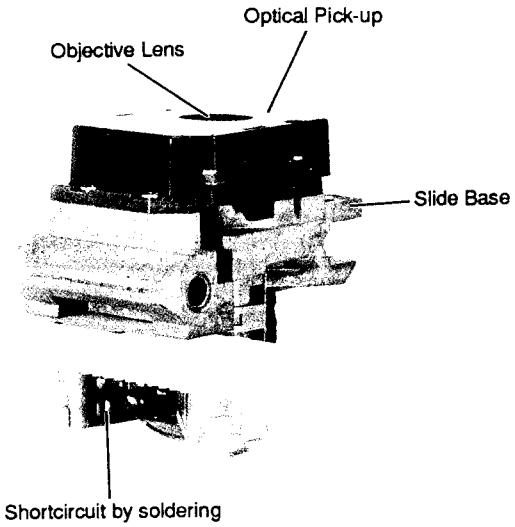


Figure 20 〈20図〉

2. 静電破壊についての注意

[KSS-152A（光学系ピックアップ）取扱時の注意]

光学系ピックアップ内のレーザーダイオードは，衣服や人体に帯電した静電荷等で電位差を生じることにより，静電破壊することがあります。静電破壊に対しての注意として下記のことに十分注意して取扱ってください。

①取扱い時には，人体アースおよびアースマットを用いて接地してから作業を行ってください。

②取扱いは，スライドベースを持って行って下さい。

③取りはずす時，20図のように半田ショートさせてから，コネクターを外して下さい。

④取付け時，コネクターを差し込んだ後，半田ショートの部分を開放して下さい。

注意）半田ショートおよび開放時には，金属部分を接地させた半田ゴテか，もしくは通電5分後の絶縁抵抗が10MΩ以上(DC500V)のもので，コテ先温度が320°C以下の半田ゴテを使用してすみやかに行って下さい。

Adjustment Procedures

1. Compact Disc Section

(1) Connections

(1) 接続図

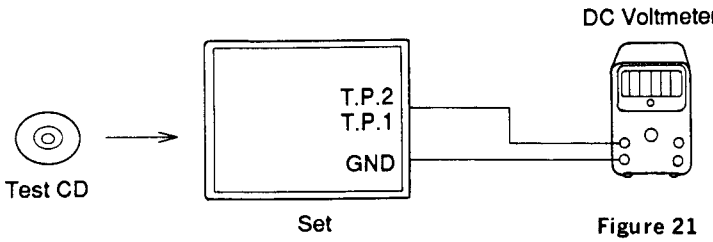


Figure 21 〈21図〉

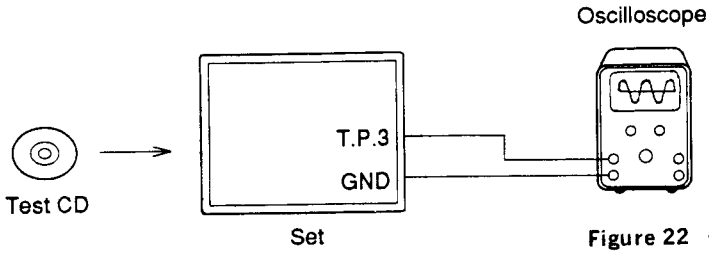


Figure 22 〈22図〉

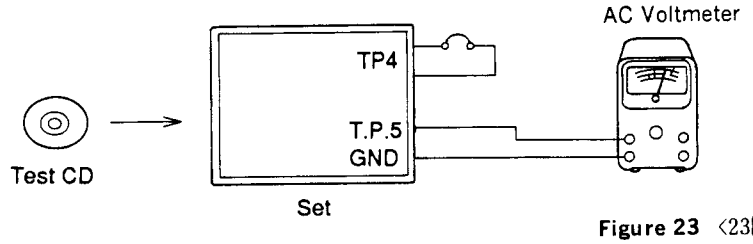


Figure 23 〈23図〉

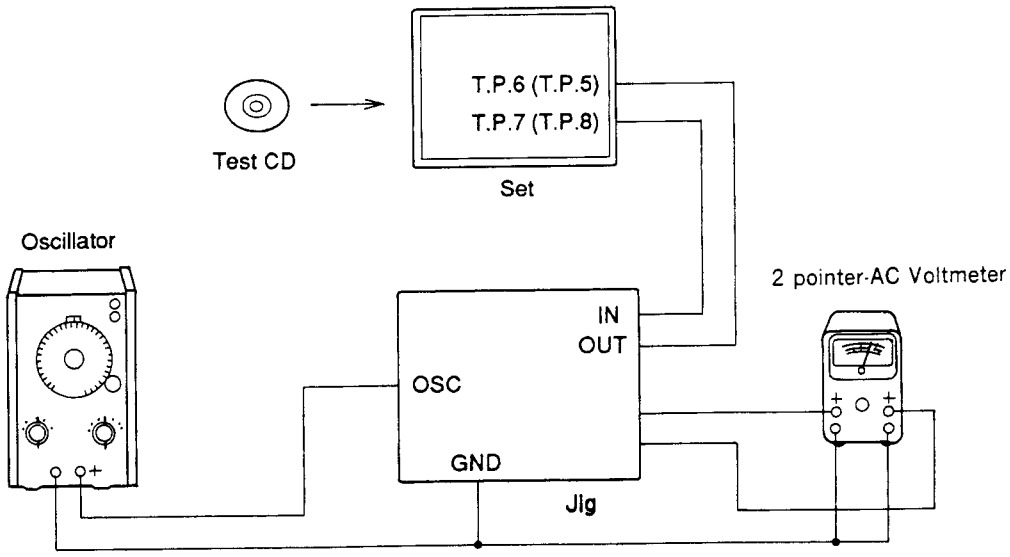


Figure 24 〈24図〉

(2) Control Settings

Power Switch .....ON
Play Switch .....ON
Others .....OFF

(3) Test CD

Use the 2nd trak on the SONY YEDS-18 CD or A-BEX TCD-782 CD.

(4) Adjustment Procedures

Step	Description	Connections	Oscillator	Test Point	Adjustment
1	VCO Adjsutment	Figure 21	—	T.P.1 T.P.2	Take measurement of the voltage at the T.P.1. Then adjsut VR202 so that the output voltage at the T.P.2 becomes 1/2 of the voltage at the T.P.1.
2	Focus Bias Adjustment	Figure 22	—	T.P.3	Adjust VR201 so that the waveform of output at the T.P.3 becomes maximum as shown on Fig. 25.
3	Tracking Error Balance Adjustment	Figure 23	—	T.P.4 T.P.5 T.P.6	After shortcircuiting between T.P.4 and T.P.5 and turning VR204 fully counter-clockwise, adjsut VR203 so that the voltage is 0V±50mV. After the adjustment set VR204 to its center position.
4	Tracking Gain Adjustment	Figure 24	1kHz 100mV	T.P.6 T.P.7	Adjust VR204 so that both arms of the voltmeter come at the same position.
5	Focus Gain Adjustment	Figure 24	1kHz 100mV	T.P.8 T.P.9	Adjust VR205 so that both arms of the voltmeter come at the same position.

(2) スイッチ類のセット位置

電源スイッチ ……ON

プレイスイッチ ……ON

その他のスイッチ ……OFF

(3) 使用テスト CD

SONY YEDS-18（2曲目）又は，A-BEX TCD-782（2曲目）。

(4) 調整方法

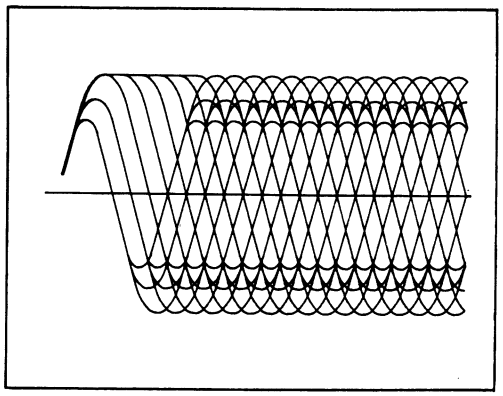


Figure 25 〈25図〉

順序	調整項目	接続図	オシレーター	テストポイント	調整方法
1	VCO 調整	21図	—	T.P.1 T.P.2	T.P.1の電圧を測定します。次に T.P.2の出力電圧が T.P.1の電圧の1/2になる様に VR202で調整します。
2	フォーカス バイアス調整	22図	—	T.P.3	T.P.3の出力が波形が25図の様に最大になる様に VR201で調整します。
3	トラッキングエラー バランス調整	23図	—	T.P.4 T.P.5 T.P.6	T.P.4, T.P.5の間をショートして VR204を反時計方向にしぼりきり，T.P.6の出力電圧が0V±50mVになる様に VR203で調整します。 調整後，VR204を中央付近にもどす事。
4	トラッキング ゲイン調整	24図	1kHz 100mV	T.P.6 T.P.7	2針 AC 電圧計の針が重なる様に VR204で調整します。
5	フォーカス ゲイン調整	24図	1kHz 100mV	T.P.8 T.P.9	2針 AC 電圧計の針が重なる様に VR205で調整します。

Adjustment Location

Main P.C. Board (Component Side) AD/UZ/AG/UQ model

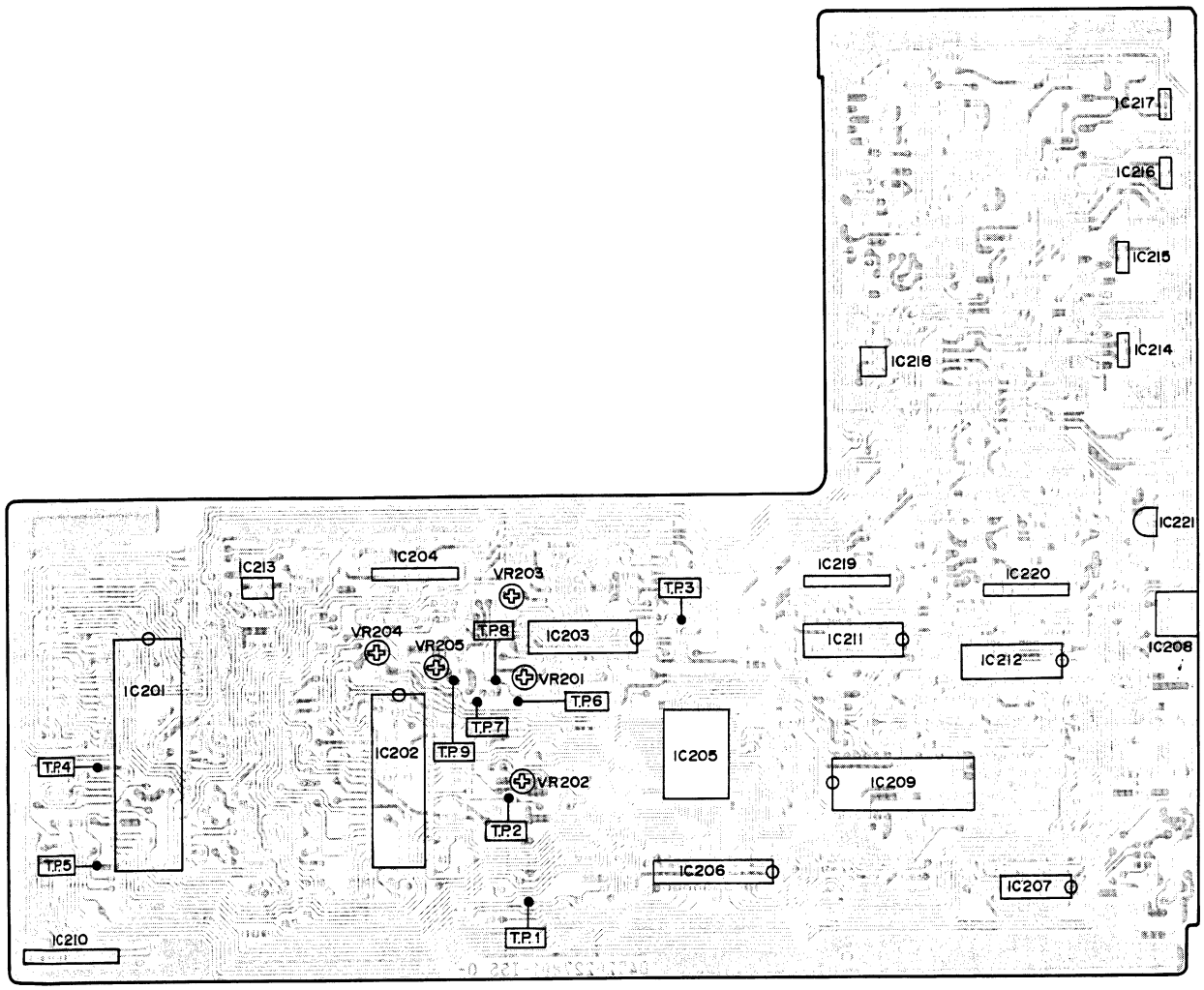


Figure 26 〈26図〉

Main P.C. Board (Component Side) JA/EK model

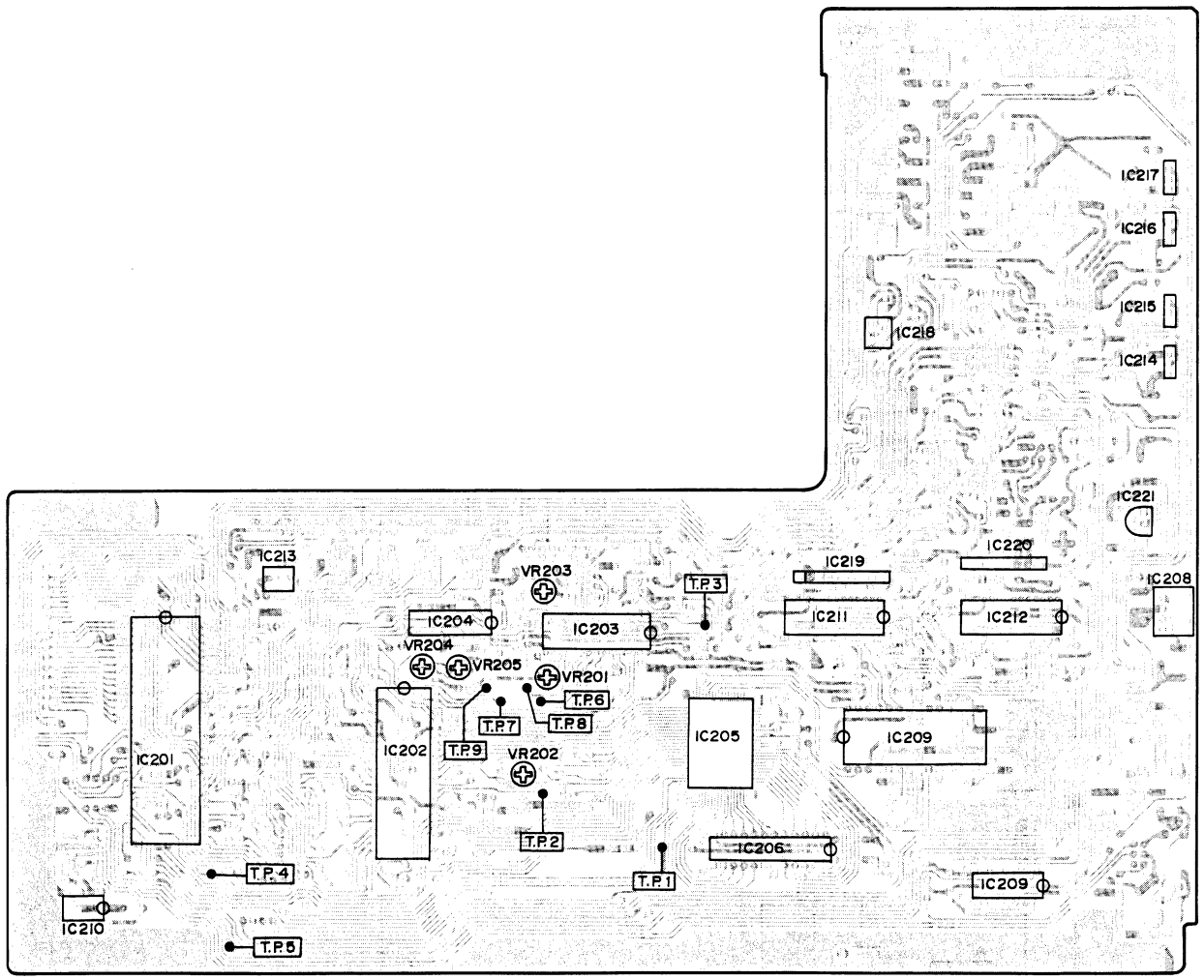
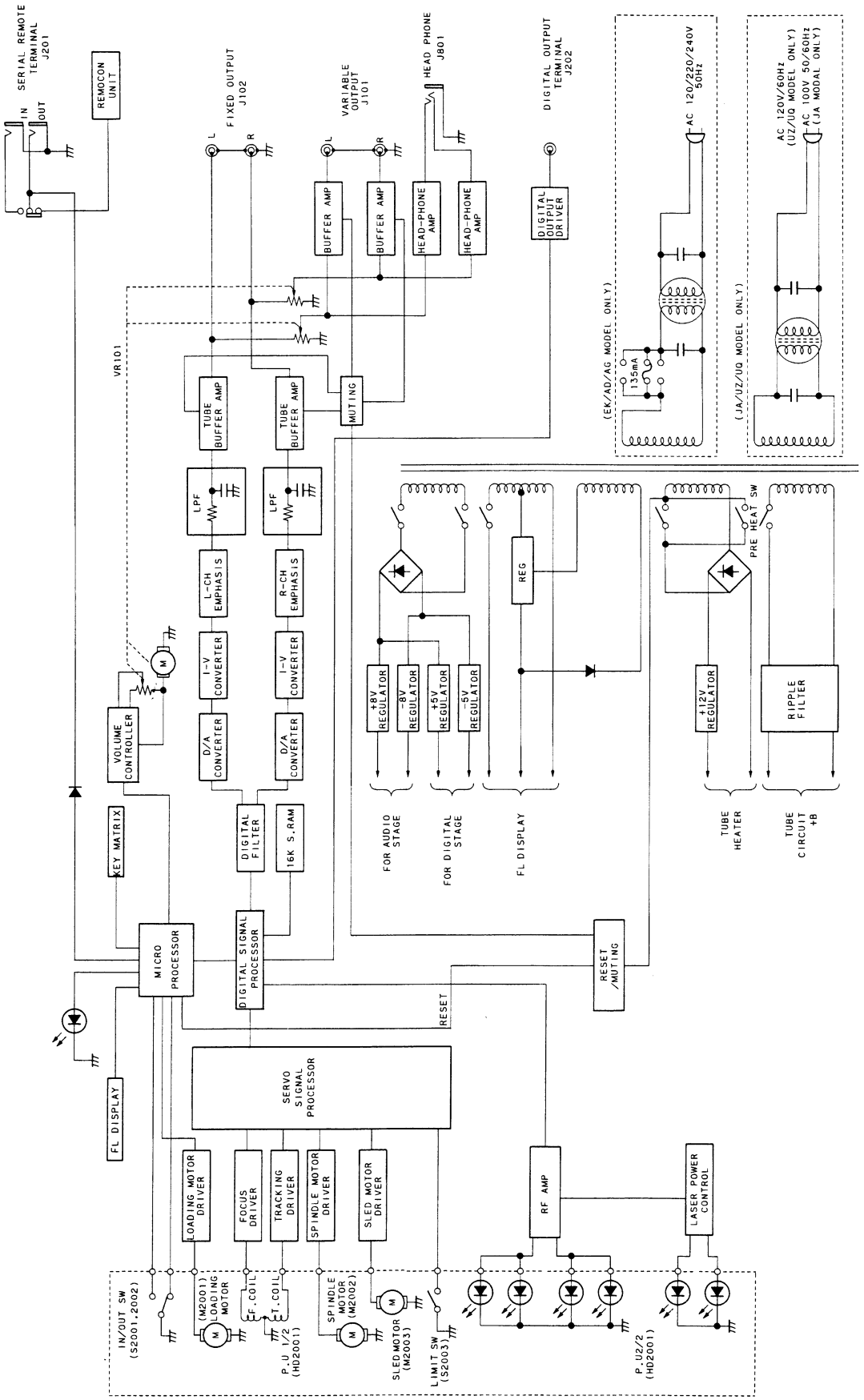


Figure 27 〈27図〉

Block Diagram



Schematic Diagram <D-105U AD/UZ/AG/UQ>(1/2)

NOTE
1. All resistance values are in ohms. K=1,000 M=1,000,000
2. All capacitance values are in microfarads. P= $\frac{1}{1,000,000}$

Voltage Measuring Conditions
1. Power Supply Voltage :AC120V,/220V,240V,50Hz(AD/AG moel only)
   AC120V,60Hz(UZ/UQ moel only)
2. Measuring Meter :Digital Multimeter
3. Measuring Point Reference :Between Ground
4. Measuring Conditions :NO Signal Input
   AT Play Mode Test CD
   (Use the 2nd trak on the YED-18)

IC201			
1	-29.3V	33	5V
2	-22.6V	34	1.4V
3	-27V	35	4.9V
4	-27V	36	0V
5	-22.6V	37	4.8V
6	-32.8V	38	—
7	-32.8V	39	0V
8	-32.8V	40	0V
9	-32.8V	41	0V
10	-32.8V	42	0V
11	-32.8V	43	2.2V
12	-32.8V	44	-19V
13	-32.8V	45	-19.1V
14	-32.8V	46	-18.7V
15	-32.8V	47	0V
16	0V	48	2.3V
17	-7.6V	49	2.3V
18	4.8V	50	0V
19	-35.8V	51	0V
20	-7.4V	52	—
21	0V	53	5V
22	5V	54	0V
23	0.4V	55	0V
24	5V	56	0V
25	5V	57	-22.2V
26	1.4V	58	-24.2V
27	1.4V	59	-23.8V
28	4.9V	60	-17.1V
29	0V	61	-10.1V
30	4.8V	62	-15.6V
31	—	63	-22.5V
32	5V	64	-29.8V

IC204	
1	11.2V
2	0.6V
3	0V
4	0V
5	-12V
6	0.6V
7	0V
8	0V

IC203	
1	0V
2	1.1V
3	0V
4	2.5V
5	2.8V
6	-4.8V
7	0V
8	0V
9	0V
10	0V
11	0V
12	-0.6V
13	-0.4V
14	0V
15	-2.2V
16	-1.9V
17	-4.9V
18	0V
19	0V
20	0V
21	-4.8V
22	0V
23	-1.7V
24	-1.2V
25	0V
26	2.4V
27	2.4V
28	4.9V
29	0.2V
30	4.9V

IC206	
1	2.5V
2	2.5V
3	2.4V
4	2.4V
5	2.4V
6	2.4V
7	2.4V
8	2.4V
9	1.9V
10	1.9V
11	1.9V
12	0V
13	1.9V
14	1.9V
15	1.9V
16	1.9V
17	2V
18	2.6V
19	*3
20	2.6V
21	4.3V
22	2V
23	2.8V
24	4.9V

*3 : 1.2~3.5V

IC207	
1	2.3V
2	2.4V
3	2.4V
4	2.4V
5	2.3V
6	2.4V
7	0V
8	2.4V
9	2.4V
10	2.4V
11	2.4V
12	2.4V
13	2.4V
14	4.9V

IC208	
1	4.2V
2	2.6V
3	—
4	—

IC205			
1	0V	41	2.4V
2	-4.8V	42	2.4V
3	2.5V	43	2.4V
4	2.7V	44	2.5V
5	2.4V	45	2.5V
6	2.4V	46	2.8V
7	4.9V	47	2V
8	2.4V	48	*2
9	2.4V	49	4.3V
10	0V	50	2.6V
11	1.5V	51	—
12	0V	52	0V
13	4.9V	53	2.3V
14	5V	54	—
15	1.4V	55	0V
16	5V	56	0V
17	0V	57	4.9V
18	4.8V	58	0V
19	0V	59	0V
20	—	60	—
21	—	61	—
22	—	62	—
23	1.4V	63	—
24	0V	64	—
25	5V	65	—
26	4.9V	66	—
27	2.3V	67	—
28	4.9V	68	—
29	2V	69	—
30	1.9V	70	—
31	1.9V	71	—
32	1.9V	72	—
33	4.9V	73	4.9V
34	1.9V	74	—
35	1.9V	75	—
36	1.9V	76	2.3V
37	1.9V	77	—
38	2.4V	78	2.5V
39	2.4V	79	2.4V
40	2.4V	80	2.5V

*2 : 1.2~35V

IC202			
1	-4.9V	25	-4.9V
2	-4.9V	26	0V
3	0V	27	—
4	0V	28	5V
5	0V	29	0V
6	0V	30	5V
7	0V	31	5V
8	0V	32	0V
9	0V	33	2.4V
10	0V	34	2.5V
11	1V	35	2.3V
12	0V	36	2.3V
13	0.3V	37	3.5V
14	0V	38	2.5V
15	0V	39	4.9V
16	4.9V	40	2.5V
17	0V	41	4.8V
18	-3.2V	42	2.5V
19	0V	43	4.9V
20	*1	44	0V
21	0V	45	1.1V
22	-4.9V	46	2.4V
23	-4V	47	0V
24	4.8V	48	0V

*1 : -0.7~0.9V

	IC105	IC214	IC215	IC216	IC217	IC221
1	15.7V	5.7V	-4.9V	7.9V	-7.8V	5V
2	0V	0V	-12.8V	0V	-12.8V	0V
3	11.9V	12V	0V	12V	0V	7.9V

	IC101	IC102	IC219	IC220	IC210
1	0V	0V	0V	0V	0V
2	0V	0V	0V	0V	0V
3	0V	0V	0V	0V	-8V
4	-7.8V	-7.8V	-7.8V	-7.8V	0V
5	0V	0V	0V	0V	—
6	0V	0V	0V	0V	—
7	0V	0V	0V	0V	—
8	7.9V	7.9V	7.9V	7.9V	12V

	IC213	IC218
1	0~4.9V	0~4.9V
2	-4.9~4.9V	-4.9~4.9V
3	-12.8V	-12.8V
4	-4.9~4.9V	-4.9~4.9V
5	12V	12V

CAUTION:
The ⚠ mark,the symbol numbers in the schematic diagram designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

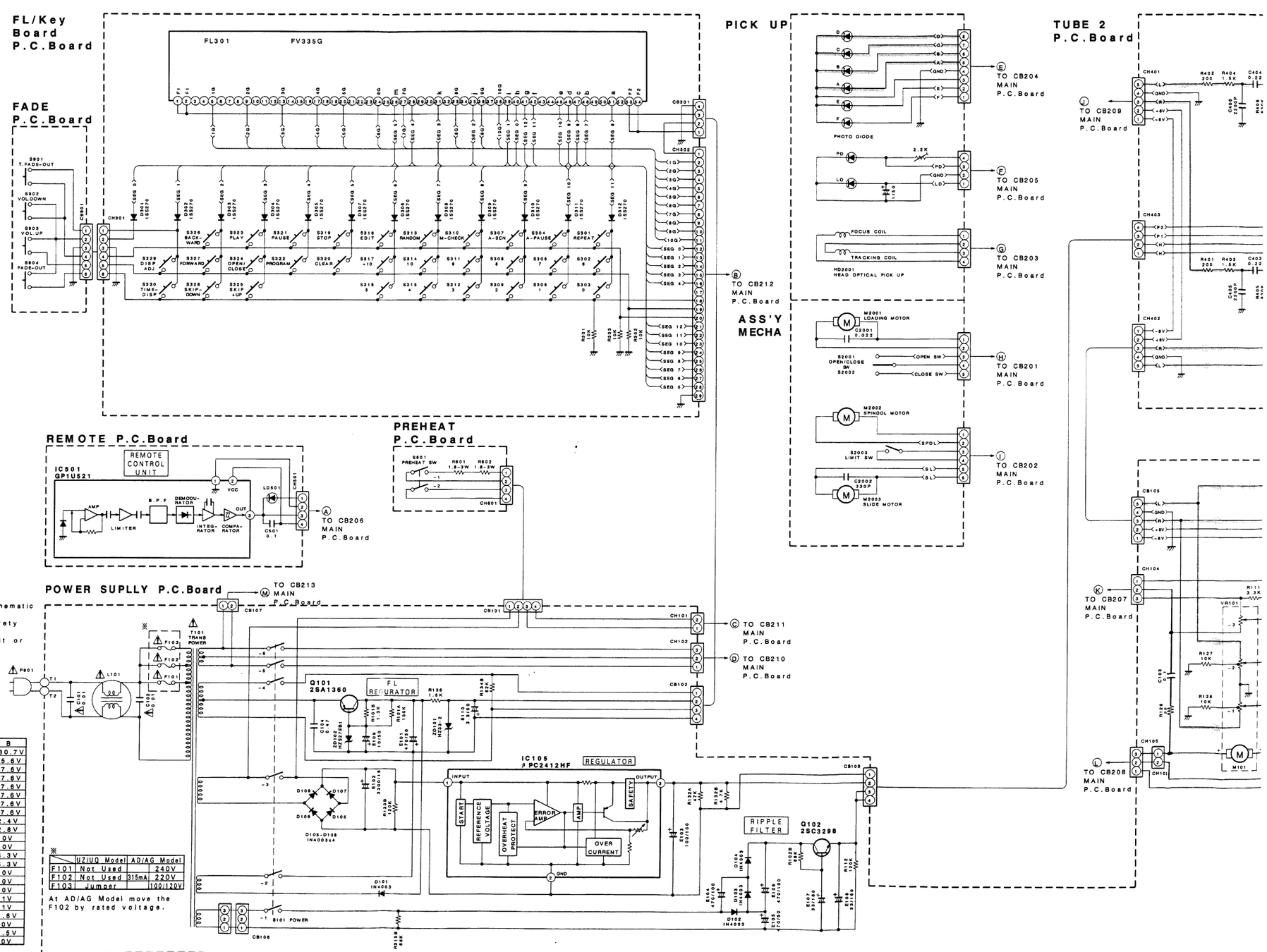
	IC209	IC211	IC212
1	2.5V	—	—
2	2.3V	—	—
3	4.9V	—	—
4	4.9V	—	—
5	—	—	—
6	2.6V	—	—
7	2.6V	—	—
8	0V	2.3V	2.3V
9	2V	5V	5V
10	4.9V	2V	2V
11	—	3.1V	3.1V
12	—	0V	0V
13	—	0V	0V
14	4.7V	0V	0V
15	4.9V	0V	0V
16	4.9V	-7.8V	-7.8V
17	4.9V	0V	0V
18	—	0V	0V
19	—	4.9V	4.9V
20	—	—	—
21	0V	—	—
22	4.9V	—	—
23	2.1V	3.4V	3.4V
24	2.1V	1.9V	1.9V
25	3.7V	3.7V	3.7V
26	1.9V	2V	2V
27	—	-7.8V	-7.8V
28	2.5V	—	—

	E	C	B
Q101	-30.2V	-43.8V	-30.7V
Q102	85.1V	130.5V	85.6V
Q103	0V	0V	-7.6V
Q104	0V	0V	-7.6V
Q105	0V	0V	-7.6V
Q106	0V	0V	-7.6V
Q107	0V	0V	-7.6V
Q108	0V	0V	-7.6V
Q201	2V	0V	2.4V
Q204	0V	0V	2.8V
Q205	11.7V	-7.5V	0V
Q206	4.9V	4.9V	0V
Q207	0V	0V	6.3V
Q208	0V	0V	6.3V
Q209	0V	0V	0V
Q210	0V	0V	0V
Q211	0V	0V	0V
Q212	0.6V	11.2V	1V
Q213	0.6V	-12V	1V
Q223	0V	0V	4.8V
Q224	0V	4.5V	0V
Q225	0V	0V	4.5V
Q226	0V	0V	0V

※	UZ/UQ Model	AD/AG Model
F101	Not Used	240V
F102	Not Used 315mA	220V
F103	Jumper	100/120V

At AD/AG Model move the F102 by rated voltage.

IC'S	IC501 IC105
TRANSISTORS (Q)	Q101 Q102



>(1/2)

IC105

IC102
IC101

Q101

Q102

Q103 Q105 Q702
Q104 Q106 Q701

PICK UP

TUBE 2
P.C.Board

TUBE1 P.C.Board

ASS'Y
MECHA

PREHEAT
P.C.Board

HEAD PHONE
P.C.Board

Q702
6CG7

Q701
6CG7

IC105
μPC2412HF
REGULATOR

IC102
M5238P
BUFFER AMP

IC101
M5238P
HEAD PHONE AMP

Q101
2SA1360
FL REGURATOR

Q102
2SC3298
RIPPLE FILTER

Q103
2SD1302

Q104
2SD1302

Q105
2SD1302

Q106
2SD1302

Q107
2SD1302

Q108
2SD1302

MUTING

TO CB204 MAIN P.C.Board

TO CB205 MAIN P.C.Board

TO CB203 MAIN P.C.Board

TO CB201 MAIN P.C.Board

TO CB202 MAIN P.C.Board

TO CB206 MAIN P.C.Board

TO CB211 MAIN P.C.Board

TO CB210 MAIN P.C.Board

TO CB209 MAIN P.C.Board

TO CB207 MAIN P.C.Board

TO CB208 MAIN P.C.Board

TO CB212 MAIN P.C.Board

PHOTO DIODE

FOCUS COIL

TRACKING COIL

HD2001
HEAD OPTICAL PICK UP

M2001
LOADING MOTOR

M2002
SPINDOL MOTOR

M2003
SLIDE MOTOR

S2001
OPEN/CLOSE SW

S2002

S2003
LIMIT SW

S801
PREHEAT SW

M101

D-105U

Schematic Diagram<D-105U JA/EK>(1/2)

NOTE

1. All resistance values are in ohms. K=1,000 M=1,000,000
2. All capacitance values are in microfarads. $P=\frac{1}{1,000,000}$

Voltage Measuring Conditions

1. Power Supply Voltage : AC100V,50/60Hz(JA mod only)
   AC120V/220V/240V,50Hz(EK mod only)
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between Ground
4. Measuring Conditions : NO Signal Input
   AT Play Mode Test CD
   (Use the 2nd trak on the YED-18)

IC'S	IC501	IC105
TRANSISTORS (Q)	Q101	Q102

IC201

1	-29.3V	33	5V
2	-22.6V	34	1.4V
3	-27V	35	4.9V
4	-27V	36	0V
5	-22.6V	37	4.8V
6	-32.8V	38	—
7	-32.8V	39	0V
8	-32.8V	40	0V
9	-32.8V	41	0V
10	-32.8V	42	0V
11	-32.8V	43	2.2V
12	-32.8V	44	-19V
13	-32.8V	45	-19.1V
14	-32.8V	46	-18.7V
15	-32.8V	47	0V
16	0V	48	2.3V
17	-7.6V	49	2.3V
18	4.8V	50	0V
19	-35.8V	51	0V
20	-7.4V	52	—
21	0V	53	5V
22	5V	54	0V
23	0.4V	55	0V
24	5V	56	0V
25	5V	57	-22.2V
26	1.4V	58	-24.2V
27	1.4V	59	-23.8V
28	4.9V	60	-17.1V
29	0V	61	-10.1V
30	4.8V	62	-15.6V
31	—	63	-22.5V
32	5V	64	-29.8V

IC202

1	-4.9V	25	-4.9V
2	-4.9V	26	0V
3	0V	27	—
4	0V	28	5V
5	0V	29	0V
6	0V	30	5V
7	0V	31	5V
8	0V	32	0V
9	0V	33	2.4V
10	0V	34	2.5V
11	1V	35	2.3V
12	0V	36	2.3V
13	0.3V	37	3.5V
14	0V	38	2.5V
15	0V	39	4.9V
16	4.9V	40	2.5V
17	0V	41	4.8V
18	-3.2V	42	2.5V
19	0V	43	4.9V
20	*1	44	0V
21	0V	45	1.1V
22	-4.9V	46	2.4V
23	-4V	47	0V
24	4.8V	48	0V

*1 : -0.7~0.9V

IC204

1	—
2	—
3	-4.9V
4	-4.9V
5	-4.9V
6	-4.9V
7	-4.9V
8	-4.9V
9	-4.8V
10	-4.8V
11	-4.8V
12	0V
13	0V
14	0V
15	0V
16	4.9V

IC207

1	2.3V
2	2.4V
3	2.4V
4	2.4V
5	2.3V
6	2.4V
7	0V
8	2.4V
9	2.4V
10	2.4V
11	2.4V
12	2.4V
13	2.4V
14	4.9V

IC203

1	0V
2	1.1V
3	0V
4	2.5V
5	2.8V
6	-4.8V
7	0V
8	0V
9	0V
10	0V
11	0V
12	-0.6V
13	-0.4V
14	0V
15	-2.2V
16	-1.9V
17	-4.9V
18	0V
19	0V
20	0V
21	-4.8V
22	0V
23	-1.7V
24	-1.2V
25	0V
26	2.4V
27	2.4V
28	4.9V
29	0.2V
30	4.9V

IC206

1	2.5V
2	2.5V
3	2.4V
4	2.4V
5	2.4V
6	2.4V
7	2.4V
8	2.4V
9	1.9V
10	1.9V
11	1.9V
12	0V
13	1.9V
14	1.9V
15	1.9V
16	1.9V
17	2V
18	2.6V
19	*3
20	2.6V
21	4.3V
22	2V
23	2.8V
24	4.9V

*3 : 1.2~3.5V

IC208

1	4.2V
2	2.6V
3	—
4	—

IC205

1	0V	41	2.4V
2	-4.8V	42	2.4V
3	2.5V	43	2.4V
4	2.7V	44	2.5V
5	2.4V	45	2.5V
6	2.4V	46	2.8V
7	4.9V	47	2V
8	2.4V	48	*2
9	2.4V	49	4.3V
10	0V	50	2.6V
11	1.5V	51	—
12	0V	52	0V
13	4.9V	53	2.3V
14	5V	54	—
15	1.4V	55	0V
16	5V	56	0V
17	0V	57	4.9V
18	4.8V	58	0V
19	0V	59	0V
20	—	60	—
21	—	61	—
22	—	62	—
23	1.4V	63	—
24	0V	64	—
25	5V	65	—
26	4.9V	66	—
27	2.3V	67	—
28	4.9V	68	—
29	2V	69	—
30	1.9V	70	—
31	1.9V	71	—
32	1.9V	72	—
33	4.9V	73	4.9V
34	1.9V	74	—
35	1.9V	75	—
36	1.9V	76	2.3V
37	1.9V	77	—
38	2.4V	78	2.5V
39	2.4V	79	2.4V
40	2.4V	80	2.5V

*2 : 1.2~35V

	IC105	IC214	IC215	IC216	IC217	IC221
1	15.7V	5.7V	-4.9V	7.9V	-7.8V	5V
2	0V	0V	-12.8V	0V	-12.8V	0V
3	11.9V	12V	0V	12V	0V	7.9V

	IC101	IC102	IC219	IC220	IC210
1	0V	0V	0V	0V	0V
2	0V	0V	0V	0V	0V
3	0V	0V	0V	0V	-8V
4	-7.8V	-7.8V	-7.8V	-7.8V	0V
5	0V	0V	0V	0V	—
6	0V	0V	0V	0V	—
7	0V	0V	0V	0V	—
8	7.9V	7.9V	7.9V	7.9V	12V

	IC213	IC218
1	0~4.9V	0~4.9V
2	-4.9~4.9V	-4.9~4.9V
3	-12.8V	-12.8V
4	-4.9~4.9V	-4.9~4.9V
5	12V	12V

CAUTION:
The ⚠ mark,the symbol numbers in the schematic diagram designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

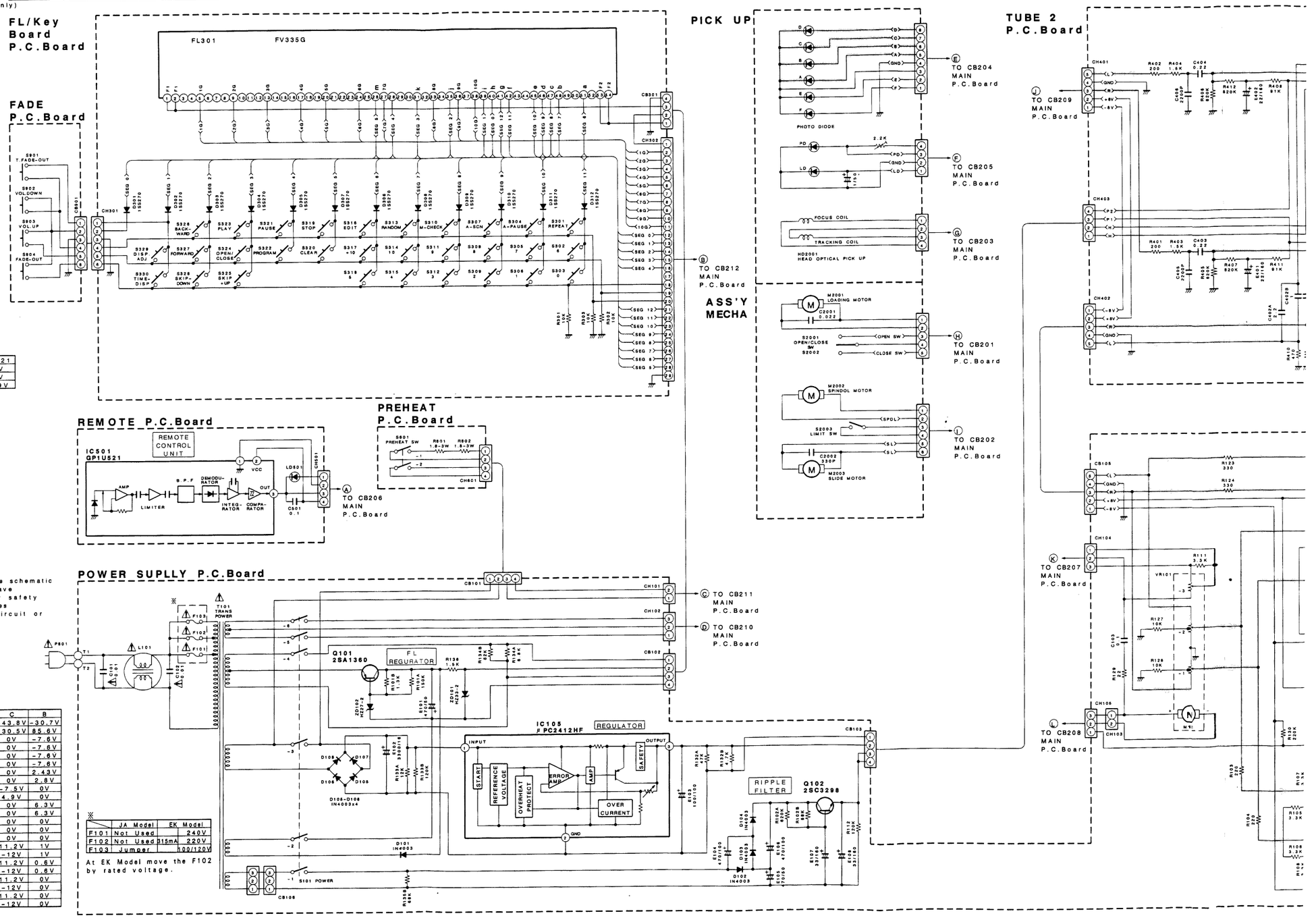
	IC209	IC211	IC212
1	2.5V	—	—
2	2.3V	—	—
3	4.9V	—	—
4	4.9V	—	—
5	—	—	—
6	2.6V	—	—
7	2.6V	—	—
8	0V	2.3V	2.3V
9	2V	5V	5V
10	4.9V	2V	2V
11	—	3.1V	3.1V
12	—	0V	0V
13	—	0V	0V
14	4.7V	0V	0V
15	4.9V	0V	0V
16	4.9V	-7.8V	-7.8V
17	4.9V	0V	0V
18	—	0V	0V
19	—	4.9V	4.9V
20	—	—	—
21	0V	—	—
22	4.9V	—	—
23	2.1V	3.4V	3.4V
24	2.1V	1.9V	1.9V
25	3.7V	3.7V	3.7V
26	1.9V	2V	2V
27	—	-7.8V	-7.8V
28	2.5V	—	—

	E	C	B
Q101	-30.2V	-43.8V	-30.7V
Q102	85.1V	130.5V	85.6V
Q103	0V	0V	-7.6V
Q104	0V	0V	-7.6V
Q105	0V	0V	-7.6V
Q106	0V	0V	-7.6V
Q201	2V	0V	2.43V
Q204	0V	0V	2.8V
Q205	11.7V	-7.5V	0V
Q206	4.9V	4.9V	0V
Q207	0V	0V	6.3V
Q208	0V	0V	6.3V
Q209	0V	0V	0V
Q210	0V	0V	0V
Q211	0V	0V	0V
Q212	0.6V	11.2V	1V
Q213	0.6V	-12V	1V
Q214	0V	11.2V	0.6V
Q215	0V	-12V	0.6V
Q216	0V	11.2V	0V
Q217	0V	-12V	0V
Q218	0.6V	11.2V	0V
Q219	0.6V	-12V	0V

※

	JA Model	EK Model
F101	Not Used	240V
F102	Not Used 315mA	220V
F103	Jumper	100/120V

At EK Model move the F102 by rated voltage.



IC105

IC102
IC101

Q102

Q103 Q105
Q104 Q106

Q702
Q701

PICK UP

TUBE 2
P.C.Board

TUBE1 P.C.Board

PREHEAT
P.C.Board

ASS'Y
MECHA

IC105
μPC2412HF
REGULATOR

IC102
M5238P
BUFFER
AMP

IC101
M5238P

HEAD PHONE AMP

HEAD PHONE
P.C.Board

MUTING

Q702
6CG7

Q701
6CG7

Q103
2SD1302

Q104
2SD1302

Q105
2SD1302

Q106
2SD1302

Q102
2SC3298

FL
REGURATOR

RIPPLE
FILTER

PHOTO DIODE

HO2001
HEAD OPTICAL PICK UP

M2001
LOADING MOTOR

S2001
OPEN/CLOSE
SW
S2002

M2002
SPINDOL MOTOR

S2003
LIMIT SW

M2003
SLIDE MOTOR

M101

Ⓔ TO CB204 MAIN P.C.Board

Ⓕ TO CB205 MAIN P.C.Board

Ⓖ TO CB203 MAIN P.C.Board

Ⓗ TO CB201 MAIN P.C.Board

Ⓘ TO CB202 MAIN P.C.Board

Ⓑ TO CB212 MAIN P.C.Board

Ⓒ TO CB211 MAIN P.C.Board

Ⓓ TO CB210 MAIN P.C.Board

Ⓙ TO CB209 MAIN P.C.Board

Ⓚ TO CB207 MAIN P.C.Board

Ⓛ TO CB208 MAIN P.C.Board

D-105U

Schematic Diagram <D-105U AD/UZ/AG/UQ> (2/2)

IC'S	IC213	IC203 IC204	IC214 IC215	IC202 IC216 IC217	IC201	IC208	IC207
TRANSISTORS (Q)	Q220		Q212 Q213		Q233 Q224 Q226 Q204 Q225		Q201

MAIN P.C.Board

IC203 CXA1081S

IC202 CXA1082BS SERVO SIGNAL PROCESSOR

IC213 LA6501 LOADING MOTOR DRIVER

IC214 NJM7805

IC215 NJM7905

IC216 NJM7808

IC217 NJM7907

IC204 STA341M

IC201 15749W02 MICRO PROCESSOR

IC208 HFBR1550

IC207 MC74HCU04

Q220 2SB1277

Q212 2SC3421

Q213 2SA1358

Q204 DTC114EL

Q224 DTC144EL

Q225 DTC144EL

Q233 2SA950

Q226 DTC124TL

Q201 2SA854Q

TO PICK UP (F)

TO PICK UP (E)

TO CH302 FL/KEY BOARD P.C.Board (B)

TO CH501 REMOTE P.C.Board (A)

TO CH101 POWER SUPLLY P.C.Board (C)

TO ASS'Y MECH (H)

TO ASS'Y MECH (I)

TO PICK UP (G)

TO CH102 POWER SUPLLY P.C.Board (D)

RF AMP

FOCUS/TRACKING/SLED MOTOR DRIVER

REGULATOR

CURRENT REFERENCE

VOLTAGE REFERENCE

FOK AMP

FOK COMPARATOR

EFM COMPARATOR

APC P.D. AMP

APC LD AMP

RF SUMMING AMP

AUTO ASYMMETRY CONTROL AMP

AUTO ASYMMETRY BUFFER

MIRROR AMP

MIRROR HOLD AMP

MIRROR DIFFERENTIAL AMP

MIRROR COMPARATOR

DEFECT AMP

DEFECT BOTTOM HOLD

DEFECT COMPARATOR

TRACKING ERROR AMP

FOCUS ERROR AMP

CENTER VOLTAGE BUFFER

RF I-V AMP(1)

RF I-V AMP(2)

E1-V AMP

CLVLPF

VCO

LOOP FILTER

3.5V REG

TTL→I'L

I'L→TTL

I'L DATA REGISTER SEQUENCER

INPUT SHIFT REGISTOR ADDRESS DECODER

OUTPUT DECODER

TRACKING PHASE COMPENSATION

FOCUS PHASE COMPENSATION

WINDOW COMPENSATION

SPF

GFS BW SWITCH

FOCUS CIRCUIT

EFM-PLL

CLV SERVO CONTROL

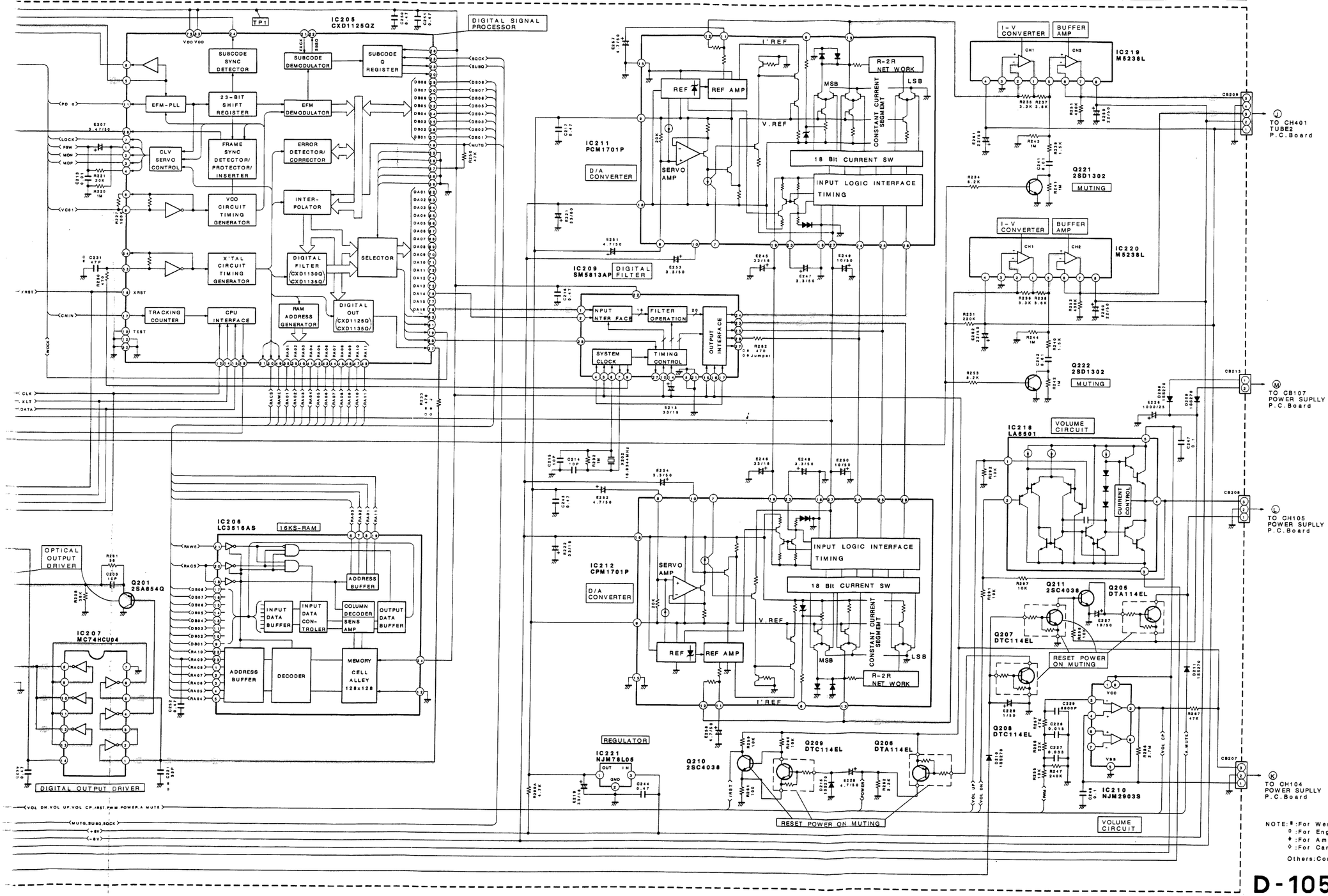
TRACKING COUNTER

OPTICAL OUTPUT DRIVE

DIGITAL OUT PUT DRIVER

IC207 IC206 IC205 IC209 IC211 IC212 IC221 IC218 IC219 IC220 IC210

Q201 Q210 Q209 Q208 Q207 Q206 Q211 Q205 Q221 Q222



NOTE: ■ :For West German model only(AD)
0 :For England model only(AG)
♦ :For American model only(UZ)
◇ :For Canadian model only(UQ)
Others:Common

D-105U

Schematic Diagram <D-105U JA/EK> (2/2)

IC'S	IC213	IC203	IC214 IC215	IC202 IC216 IC217	IC201	IC204	IC208	IC207
TRANSISTORS (Q)	Q220	Q218 Q219	Q216 Q217	Q214 Q215	Q212 Q213	Q204		Q201

MAIN P.C.Board

IC203 CXA1081S

IC202 CXA1082BS SERVO SIGNAL PROCESSOR

IC204 MC14053

IC213 LA6501

IC214 NJM7805

IC215 NJM7905

IC216 NJM7808

IC217 NJM7908

IC201 18385W02 MICRO PROCESSOR

IC208 HFBR1550

IC207 MC74HCU04

Q220 2SB1277

Q218 2SC3421

Q219 2SA1358

Q216 2SC3421

Q217 2SA1358

Q214 2SC3421

Q215 2SA1358

Q212 2SC3421

Q213 2SA1358

Q204 DTC114EL

Q201 2SA854Q

RF AMP

CURRENT REFERENCE

VOLTAGE REFERENCE

LEVEL SHIFT

FOK AMP

FOK COMPARATOR

EFM COMPARATOR

APC PD AMP

APC LD AMP

AUTO ASYMMETRY CONTROL AMP

AUTO ASYMMETRY BUFFER

RF SUMMING AMP

RF(I-V AMP(I))

RF(I-V AMP(2))

PEAK HOLD

BOTTOM HOLD

MIRROR AMP

MIRROR HOLD AMP

MIRROR DIFFERENTIAL AMP

MIRROR COMPARATOR

DEFECT AMP

DEFECT BOTTOM HOLD

DEFECT COMPARATOR

TRACKING ERROR AMP

E1-V AMP

E-BAL

CENTER VOLTAGE BUFFER

FOCUS ERROR AMP

F.BIAS

T.GAIN

F.GAIN

TO PICK UP

TO CH302 FL/KEY BOARD P.C.Board

TO CH501 REMOTE P.C.Board

TO CH101 POWER SUPLLY P.C.Board

TO ASS'Y MECH

TO ASS'Y MECH

TO PICK UP

TO CH102 POWER SUPLLY P.C.Board

D201-D204 IN4003x4

LOADING MOTOR DRIVER

CURRENT CONTROL

REGULATOR

REGULATOR

FOCUS DRIVER

TRACKING DRIVER

SLED MOTOR DRIVER

SPINDLE MOTOR DRIVER

CLVLPF

VCO

LOOP FILTER

V→I

3.5V REG

TTL→I'L

I'L→TTL

I'L DATA REGISTER SEQUENCER

INPUT SHIFT REGISTER ADDRESS DECODER

OUTPUT DECODER

WINDOW COMPENSATION

SPF

FOCUS PHASE COMPENSATION

TRACKING PHASE COMPENSATION

DEFECT MUTING SWITCH

LEVEL CONVERTER

BINARY TO 1 of 2 DECODER WITH INH BIT

GFS BW SWITCH

EFM-PLL

CLV SERVO CONTROL

TRACKING COUNTER

OPTICAL OUTPUT DRIVER

DIGITAL OUTPUT DRIVER

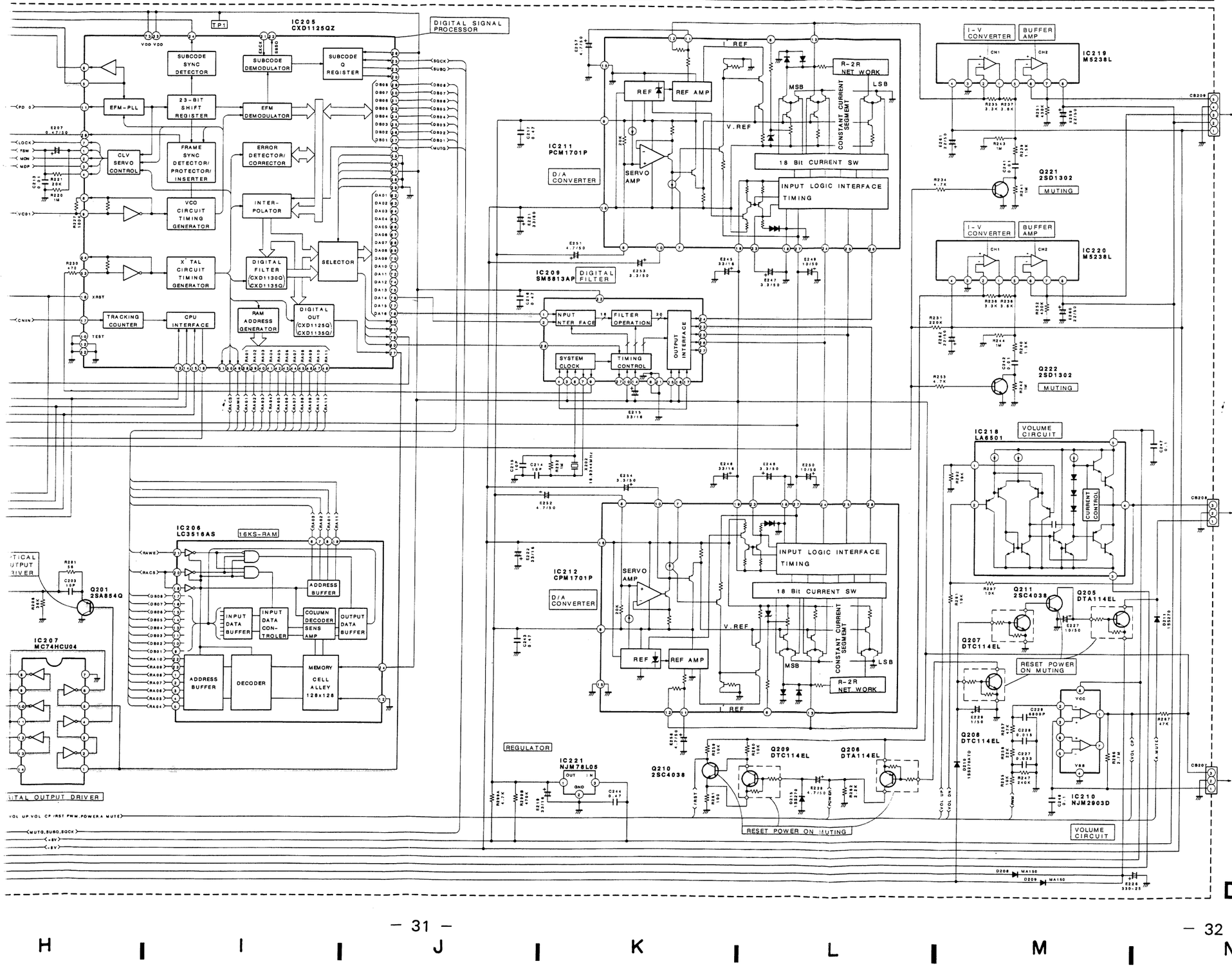
270K x15

270K x8

X201 4.19MHz

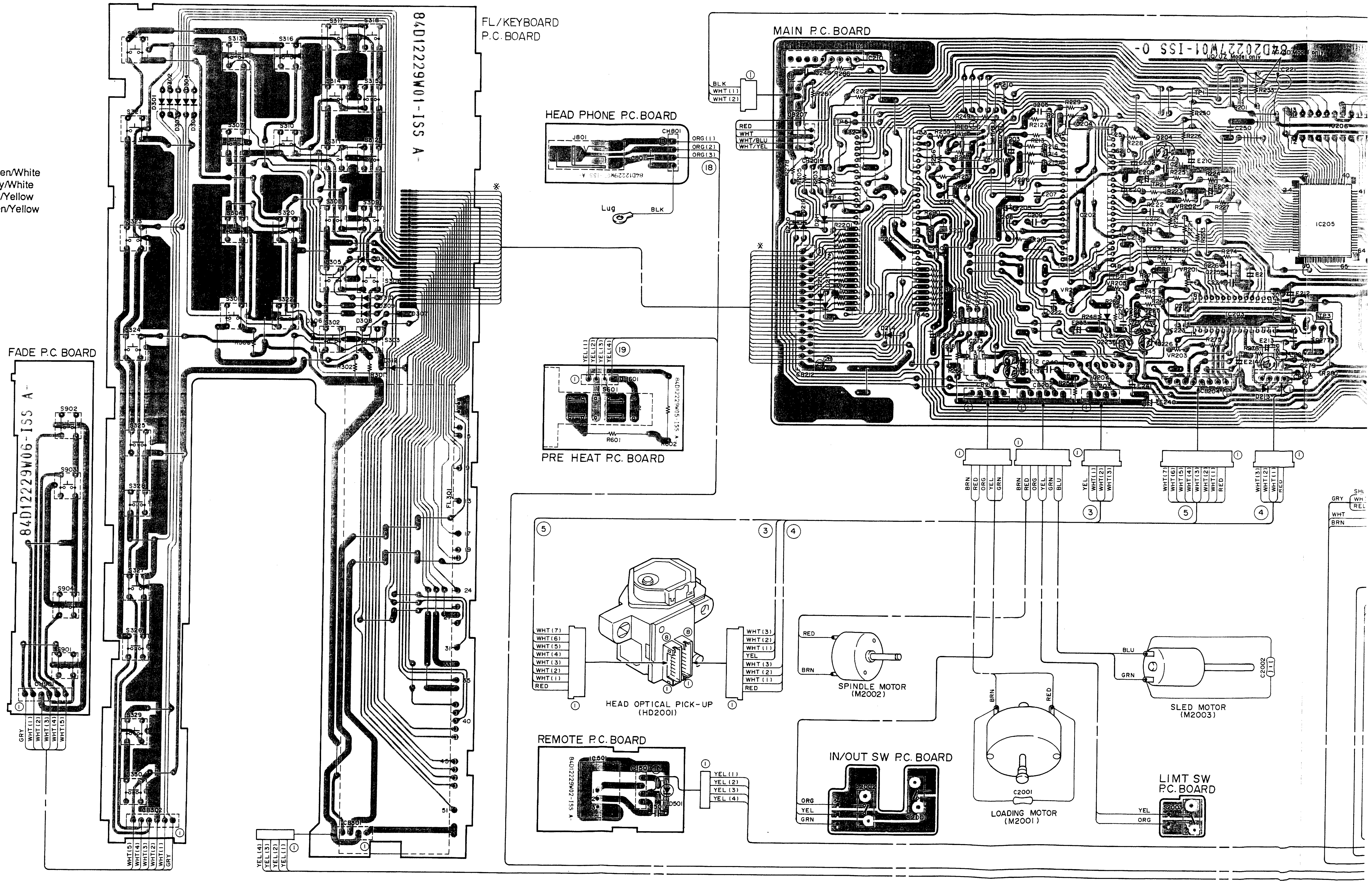
IC207 IC206 IC205 IC209 IC211 IC212 IC221 IC218 IC219 IC220 IC210

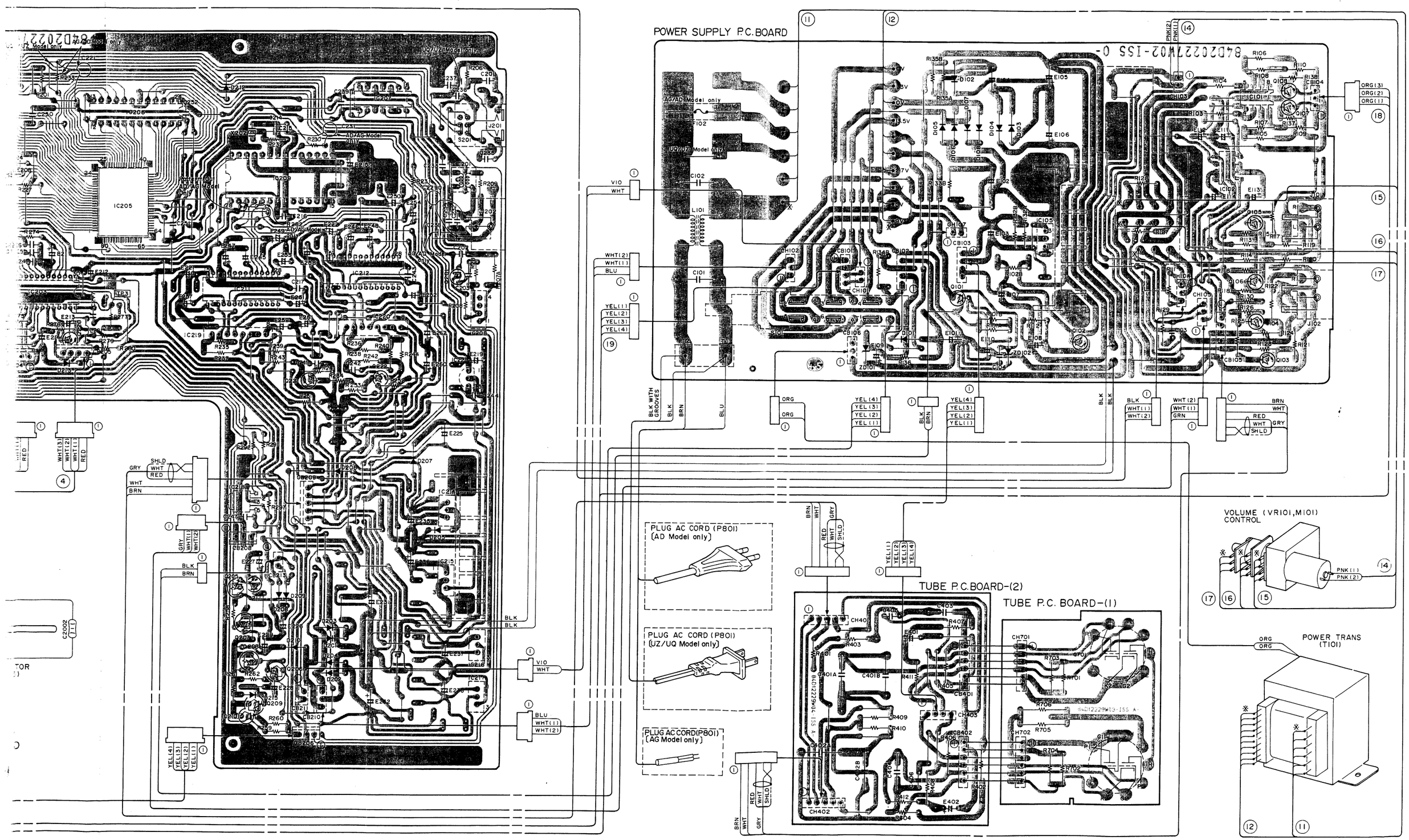
Q201 Q210 Q209 Q208 Q207 Q208 Q211 Q221 Q222 Q205



Parts Layout on P.C. Boards and Wiring Diagram (AD/UZ/AG/UQ model)

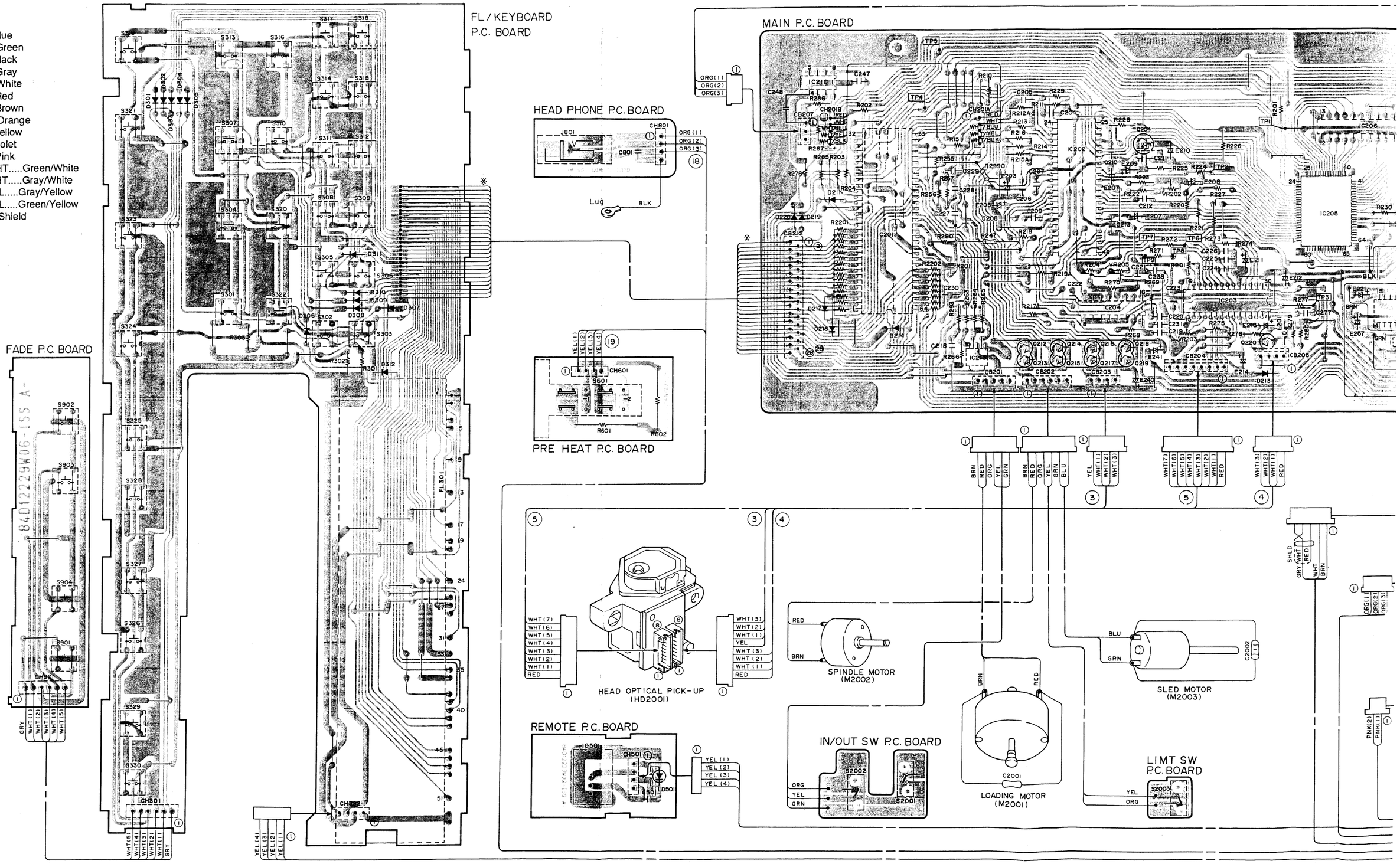
BLU.....Blue
GRN.....Green
BLK.....Black
GRY.....Gray
WHT.....White
RED.....Red
BRN.....Brown
ORG.....Orange
YEL.....Yellow
VIO.....Violet
PNK.....Pink
GRN/WHT.....Green/White
GRY/WHT.....Gray/White
GRY/YEL.....Gray/Yellow
GRN/TEL.....Green/Yellow
SHLD....Shield


FL/KEYBOARD P.C. BOARD
84D12229W01-ISS A
FADE P.C BOARD
84D12229W06-ISS A
HEAD PHONE P.C. BOARD
PRE HEAT P.C. BOARD
84D12229W05-ISS A
REMOTE P.C. BOARD
84D12229W02-ISS A
MAIN P.C. BOARD
84D20227W01-ISS 0
UQ/UZ Model only
AG/AD Model only
Lug
HEAD OPTICAL PICK-UP
(HD2001)
SPINDLE MOTOR
(M2002)
LOADING MOTOR
(M2001)
SLED MOTOR
(M2003)
IN/OUT SW P.C. BOARD
LIMT SW
P.C. BOARD


POWER SUPPLY P.C.BOARD
AG/AD Model only
UQ/UZ Model only
IC205
VIO
WHT
WHT(2)
WHT(1)
BLU
YEL(1)
YEL(2)
YEL(3)
YEL(4)
BLK WITH GROOVES
BLK
BRN
ORG
BLK
WHT(1)
WHT(2)
GRN
RED
WHT
SHLD
GRY
PNK(1)
PNK(2)
ORG(3)
ORG(2)
ORG(1)
PLUG AC CORD (P801)
(AD Model only)
PLUG AC CORD (P801)
(UZ/UQ Model only)
PLUG AC CORD(P801)
(AG Model only)
TUBE P.C.BOARD-(2)
TUBE P.C. BOARD-(1)
VOLUME (VR101,M101)
CONTROL
POWER TRANS
(T101)
ORG
BLU
BLK
GRY
BRN
WHT
RED
SHLD

Parts Layout on P.C. Board and Wiring Diagram (JA/EK model)

BLU.....Blue
GRN.....Green
BLK.....Black
GRY.....Gray
WHT.....White
RED.....Red
BRN.....Brown
ORG.....Orange
YEL.....Yellow
VIO.....Violet
PNK.....Pink
GRN/WHT.....Green/White
GRY/WHT.....Gray/White
GRY/YEL.....Gray/Yellow
GRN/TEL.....Green/Yellow
SHLD....Shield



POWER SUPPLY P.C.BOARD

PLUG AC CORD (P801)
(EK Model only)

PLUG AC CORD (P801)
(JA Model only)

TUBE P.C.BOARD-(2)

TUBE P.C. BOARD-(1)

VOLUME (VR101,M101)
CONTROL

POWER TRANS
(T101)

Electrical Parts List

Resistor:Carbon resistors under 1/8 watts are not mentioned in the parts list, please confirm them by schematic diagram.
Capacitor:μF-microfarads. pF-picofarads.

Abbreviations

Cap.-Capacitor	CER.-Ceramic
CP.-Chip	ELY.-Electrolytic
LED.-Light Emitting Diode	MIC.-Mica
MO.-Metal Oxide Film	MYL.-Mylar
PP.-Polypropylene	SOL.-Solid
TAN.-Tantalum	ZEN.-Zenner

	Symbol No	Part No	Description
	Main P.C. Board		
	IC's		
●	IC201	51T15365W02	15365W02
▲	IC201	51T15365W02	15365W02
◆	IC201	51T15749W02	15749W02
◇	IC201	51T15749W02	15749W02
■	IC201	51T15749W02	15749W02
□	IC201	51T15749W02	15749W02
	IC202	51T84722F02	CXA1082BS
	IC203	51T84721F01	CXA1081S
●	IC204	51T94886F01	MC14053
▲	IC204	51T94886F01	MC14053
◆	IC204	51T25098W01	STA341M
◇	IC204	51T25098W01	STA341M
■	IC204	51T25098W01	STA341M
□	IC204	51T25098W01	STA341M
	IC205	51T84720F01	CXD1125QZ
	or	51T84719F01	CXD1135QZ
	IC206	51T84723F01	LC35164S
	IC207	51T94890F01	MC74HCU04
	IC208	51T15608W01	HFBR1550
	IC209	51T15628W01	SM5813AP
●	IC210	51T64227F01	NJM2903D
▲	IC210	51T64227F01	NJM2903D
◆	IC210	51T62866F01	NJM2903S
◇	IC210	51T62866F01	NJM2903S
■	IC210	51T62866F01	NJM2903S
□	IC210	51T62866F01	NJM2903S
	IC211	51T16104W01	PCM1701P
	IC212	51T16104W01	PCM1701P
	IC213	51T90889F01	LA6501
	IC214	51T80338F01	NJM7805
	IC215	51T80339F01	NJM7905
●	IC216	51T15976W01	NJM7808
▲	IC216	51T15976W01	NJM7808
◆	IC216	51T15121W02	NJM7808FA
◇	IC216	51T15121W02	NJM7808FA
■	IC216	51T15121W02	NJM7808FA
□	IC216	51T15121W02	NJM7808FA
	IC217	51T15977W01	NJM7908
	IC218	51T90889F01	LA6501
	IC219	51T80136F02	M5238L
	IC220	51T80136F02	M5238L
	IC221	51T60969F01	NJM78L05-A
	Transistors		
	Q201	48T73682F01	2SA854Q
	Q204	48T82763F02	DTC114EL
	Q205	48T82762F02	DTA114EL
	Q206	48T82762F02	DTA114EL
	Q207	48T82763F02	DTC114EL
	Q208	48T82763F02	DTC114EL
	Q209	48T82763F02	DTC114EL
	Q210	48T82758F01	2SC4038
	Q211	48T82758F01	2SC4038
	Q212	48T69176F01	2SC3421
	Q213	48T69177F01	2SA1358
●	Q214	48T69176F01	2SC3421
▲	Q214	48T69176F01	2SC3421
●	Q215	48T69177F01	2SA1358
▲	Q215	48T69177F01	2SA1358
●	Q216	48T69176F01	2SC3421
▲	Q216	48T69176F01	2SC3421
●	Q217	48T69177F01	2SA1358
▲	Q217	48T69177F01	2SA1358
●	Q218	48T69176F01	2SC3421
▲	Q218	48T69176F01	2SC3421
●	Q219	48T69177F01	2SA1358
▲	Q219	48T69177F01	2SA1358
	Q220	48T82759F01	2SB1277
	Q221	48T57305F04	2SD1302
	Q222	48T57305F04	2SD1302
◆	Q223	48T43526F02	2SA950
◇	Q223	48T43526F02	2SA950
■	Q223	48T43526F02	2SA950
□	Q223	48T43526F02	2SA950
◆	Q224	48T82763F04	DTC114EL
◇	Q224	48T82763F04	DTC114EL

Note:●:For Japanese model only (JA)
▲:For General Foreigb model only (EK)
others:Common

◆:For American model only (UZ)
■:For West germany model only (AD)
◇:For Canadian model only (UQ)
□:For England modell only (AG)

Symbol No	Part No	Description
■ Q224	48T82763F04	DTC114EL
□ Q224	48T82763F04	DTC114EL
◆ Q225	48T82763F04	DTC114EL
◇ Q225	48T82763F04	DTC114EL
■ Q225	48T82763F04	DTC114EL
□ Q225	48T82763F04	DTC114EL
◆ Q226	48T82763F11	DTC124TL
◇ Q226	48T82763F11	DTC124TL
■ Q226	48T82763F11	DTC124TL
□ Q226	48T82763F11	DTC124TL
Diodes		
D201	48S40477U01	1N4003
D202	48S40477U01	1N4003
D203	48S40477U01	1N4003
D204	48S40477U01	1N4003
D205	48T84758F01	1SS270ATD
D206	48S40477U01	1N4003
D207	48S40477U01	1N4003
● D208	48T51582F01	MA150
▲ D208	48T51582F01	MA150
◆ D208	48T84758F01	1SS270
◇ D208	48T84758F01	1SS270
■ D208	48T84758F01	1SS270
□ D208	48T84758F01	1SS270
● D209	48T51582F01	MA150
▲ D209	48T51582F01	MA150
◆ D209	48T84758F01	1SS270
◇ D209	48T84758F01	1SS270
■ D209	48T84758F01	1SS270
□ D209	48T84758F01	1SS270
D210	48T84758F01	1SS270
D211	48T84758F01	1SS270
D212	48T84758F01	1SS270
D213	48T84758F01	1SS270
D214	48T84758F01	1SS270
D215	48T84758F01	1SS270
D217	48T84758F01	1SS270
D218	48T84758F01	1SS270
D219	48T84758F01	1SS270
D220	48T84758F01	1SS270
◆ D221	48T84758F01	1SS270
◇ D221	48T84758F01	1SS270
■ D221	48T84758F01	1SS270
□ D221	48T84758F01	1SS270

Symbol No	Part No	Description	
Capacitors			
C201	08T57298F01	CER.	0.1 μF
E201	23T00180L08	ELY.	33 μF/16V
C202	08T94422F01	CER.	0.47 μF
◆ E202	23T00180L08	ELY	33 μF/16V
◇ E202	23T00180L08	ELY	33 μF/16V
■ E202	23T00180L08	ELY	33 μF/16V
□ E202	23T00180L08	ELY	33 μF/16V
◆ C203	08S55260F13	CER.	10pF
◇ C203	08S55260F13	CER.	10pF
■ C203	08S55260F13	CER.	10pF
□ C203	08S55260F13	CER.	10pF
● C203	08S65480F13	CER.	10 μF
▲ C203	08S65480F13	CER.	10 μF
E203	23T00180L25	ELY.	10 μF/50V
C204	08T57705F67	MYL.	0.01 μF
C205	08T57705F69	MYL.	0.015 μF
E205	23T00180L25	MYL.	10 μF/50V
C206	08T57851F11	TF.	0.068 μF
◆ E206	23T00180L08	ELY,	33 μF/16V
◇ E206	23T00180L08	ELY,	33 μF/16V
■ E206	23T00180L08	ELY.	33 μF/16V
□ E206	23T00180L08	ELY.	33 μF/16V
C207	08T57851F13	TF.	0.1 μF
E207	23T00180L20	ELY.	0.47 μF/50V
C208	08T57705F73	MYL.	0.033 μF
E208	23T00180L13	ELY.	47 μF/25V
C209	08T57851F13	TF.	0.1 μF
E209	23T00180L24	ELY.	4.7 μF/50V
C210	08T57851F13	TF.	0.1 μF
E210	23T00180L21	ELY.	1 μF/50V
C211	08T57705F63	MYL.	4700pF
E211	23T00180L20	ELY.	0.47 μF/50V
C212	08T57705F55	MYL.	1000pF
E212	23T00180L26	ELY.	22 μF/50V
C213	08T57705F67	MYL.	0.01 μF
E213	23T00180L14	ELY.	100 μF/25V
C214	08T55260F13	CER.	10pF
E214	23T00180L26	ELY.	22 μF/50V
C215	08T55260F13	CER.	10pF
E215	23T00180L08	ELY.	33 μF/16V
C216	08T94422F01	CER.	0.47 μF
C217	08T94422F01	CER.	0.47 μF
C218	08T57851F13	TF.	0.1 μF
● C219	08T57851F21	TF.	0.47 μF
▲ C219	08T57851F21	TF.	0.47 μF

Note: ●:For Japanese model only (JA)
▲:For General Foreigb model only (EK)
others:Common

◆:For American model only (UZ)
■:For West Germany model only (AD)
◇:For Canadian model only (UQ),
□:For England model only (AG),

Symbol No	Part No	Description		
◆ C219	08T94422F01	CER.	0.47μF	
◇ C219	08T94422F01	CER.	0.47μF	
■ C219	08T94422F01	CER.	0.47μF	
□ C219	08T94422F01	CER.	0.47μF	
E219	23T00180L08	ELY.	33μF/16V	
C220	08T57705F59	MYL.	2200pF	
● C221	08T57851F21	TF.	0.47μF	
▲ C221	08T57851F21	TF.	0.47μF	
■ C221	21C45322G16	CER.	33pF	
□ E221	23T00180L08	ELY.	33μF/16V	
C222	08T57705F63	MYL.	4700pF	
E222	23T00180L08	ELY.	33μF/16V	
C223	08T57705F73	MYL.	0.033μF	
C224	08T57705F67	MYL,.	0.01μF	
C225	08T57705F67	MYL.	0.01μF	
E225	23T74513F06	ELY.	18mF/5.5V	
C226	08T57705F67	MYL.	0.01μF	
● E226	23T00180L16	ELY.	330μF/25V	
▲ E226	23T00180L16	ELY.	330μF/25V	
◆ E226	23T00134L46	ELY,	1000μF/25V	
◇ E226	23T00134L46	ELY,	1000μF/25V	
■ E226	23T00134L46	ELY,	1000μF/25V	
□ E226	23T00134L46	ELY,	1000μF/25V	
C227	08T57705F73	MYL.	0.033μF	
E227	23T00180L25	ELY.	10μF/50V	
C228	08T57705F69	MYL.	0.015μF	
E228	23T00180L24	ELY.	4.7μF/50V	
C229	08T57705F65	MYL.	6800pF	
E229	23T00180L21	ELY.	1μF/50V	
C230	08T94422F01	CER.	0.47μF	
● C231	08T57298F01	CER.	0.1μF	
▲ C231	08T57298F01	CER.	0.1μF	
■ C231	21C45322G18	CER.	47pF	
□ C231	21C45322G18	CER.	47pF	
E231	23T00133L12	ELY.	4700μF/16V	
C232	08T57298F01	CER.	0.1μF	
E232	23T00133L12	ELY.	4700μF/16V	
C233	08T94422F01	CER.	0.47μF	
C234	08T57298F01	CER.	0.1μF	
◆ E233	23T00180L21	ELY.	10μF/50V	
◇ E233	23T00180L21	ELY.	10μF/50V	
■ E233	23T00180L21	ELY.	10μF/50V	
□ E233	23T00180L21	ELY.	10μF/50V	
C235	08T57298F01	CER.	0.1μF	
E235	23T00180L14	ELY.	100μF/25V	
■ C236	08S40805F07	CER.	1000pF	
■ C236	08S40805F07	CER.	1000pF	

Note:●:For Japanese model only (JA)
▲:For General Foreign model only (EK)
others:Common

Symbol No	Part No	Description		
E236	23T00180L14	ELY.	100μF/25V	
C237	08T57298F01	CER.	0.1μF	
● E237	23T00180L16	ELY.	330μF/25V	
▲ E237	23T00180L16	ELY.	330μF/25V	
◆ E237	23T00181L29	ELY.	330μF/25V	
◇ E237	23T00181L29	ELY.	330μF/25V	
■ E237	23T00181L29	ELY.	330μF/25V	
□ E237	23T00181L29	ELY.	330μF/25V	
■ C238	21C45322G32	CER.	0.022μF	
□ C238	21C45322G32	CER.	0.022μF	
● C238	08T57298F01	CER.	0.1μF	
▲ C238	08T57298F01	CER.	0.1μF	
● E238	23T00180L16	ELY.	330μF/25V	
▲ E238	23T00180L16	ELY.	330μF/25V	
◆ E238	23T00181L29	ELY.	330μF/25V	
◇ E238	23T00181L29	ELY.	330μF/25V	
■ E238	23T00181L29	ELY.	330μF/25V	
□ E238	23T00181L29	ELY.	330μF/25V	
C239	08T94422F01	CER.	0.47μF	
◆ C240	08T57851F13	TF.	0.1μF	
◇ C240	08T57851F13	TF.	0.1μF	
■ C240	08T57851F13	TF.	0.1μF	
□ C240	08T57851F13	TF.	0.1μF	
E240	23T00180L08	ELY.	33μF/16V	
C241	08T00151L25	P.P	0.01μF	
E241	23T00180L08	ELY.	33μF/16V	
C242	08T00151L25	P.P	0.01μF	
C243	08T94422F01	CER.	0.47μF	
C244	08T94422F01	CER.	0.47μF	
E245	23T00180L08	ELY.	33μF/16V	
E246	23T00180L08	ELY.	33μF/16V	
C247	08T57298F01	CER.	0.1μF	
E247	23T00180L23	ELY.	3.3μF/50V	
C248	08T57298F01	CER.	0.1μF	
E248	23T00180L23	ELY.	3.3μF/50V	
E249	23T00180L25	ELY.	10μF/50V	
◆ C250	08T94422F01	CER.	0.47μF	
◇ C250	08T94422F01	CER.	0.47μF	
■ C250	08T94422F01	CER.	0.47μF	
□ C250	08T94422F01	CER.	0.47μF	
E250	23T00180L25	ELY.	10μF/50V	
◆ C251	08T94422F01	CER.	0.47μF	
◇ C251	08T94422F01	CER.	0.47μF	
■ C251	08T94422F01	CER.	0.47μF	
□ C251	08T94422F01	CER.	0.47μF	

◆:For American model only (UZ)
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◇:For Canadian model only (UQ),
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Symbol No	Part No	Description		
	E251	23T00180L24	ELY.	4.7μF/50V
◆	C252	08T94422F01	CER.	0.47μF
◇	C252	08T94422F01	CER.	0.47μF
■	C252	08T94422F01	CER.	0.47μF
□	C252	08T94422F01	CER.	0.47μF
	E252	23T00180L24	ELY.	4.7μF/50V
	E253	23T00180L23	ELY.	3.3μF/50V
	E254	23T00180L23	ELY.	3.3μF/50V
	E257	23T00180L24	ELY.	4.7μF/50V
	E258	23T00180L24	ELY.	4.7μF/50V
	E259	23T00180L26	ELY.	22μF/50V
	E260	23T00180L26	ELY.	22μF/50V
	E261	23T00180L26	ELY.	22μF/50V
	E262	23T00180L26	ELY.	22μF/50V
	C277	08T57705F59	MYL.	2200pF
■	C2290	08T44979P10	CER.	0.022μF
□	C2290	08T44979P10	CER.	0.022μF
	Jacks			
	J201, S201	09T84124F01	HEADPHONE	
	J202	09T15627W01	PLATE.PH1P	
	Coil			
●	L201	24T50508F22	Inductor,10μH	
▲	L201	24T50508F22	Inductor,10μH	
◆	L201	24T70381F21	Inductor,10μH	
◇	L201	24T70381F21	Inductor,10μH	
■	L201	24T70381F21	Inductor,10μH	
□	L201	24T70381F21	Inductor,10μH	
	Resistars			
	R2201	06T74182F09	Block 270K ohm×15	
	R2202	06T74182F08	Block 270K ohm×8	
	VR201	18T15355W15	Variable RH064AC 22K ohm	
	VR202	18T15355W09	Variable RH064AC 2.2Kohm	
	VR203	18T15355W15	Variable RH064AC 22K ohm	
	VR204	18T15355W15	Variable RH064AC 22K ohm	
	VR205	18T15355W15	Varuible RH064AC 22K ohm	
	Trans			
	T201	25T94882F01	PULS	
	Crystals			
	X201	91T15285W01	Ceramic LOCK 4.19MHz	
	X202	48T84727F02	AT-51 16.9344MHz	

Symbol No	Part No	Description		
	Power Supply P.C. Board			
	IC's			
	IC101	51T80136F01	M5238P	
	IC102	51T80136F01	M5238P	
	Transistors			
	Q101	48T64375F01	2SA1360	
	Q102	48T60555F01	2SC3298	
	Q103	48T57305F04	2SD1302	
	Q104	48T57305F04	2SD1302	
	Q105	48T57305F04	2SD1302	
	Q106	48T57305F04	2SD1302	
◆	Q107	48T57805F04	2SD1302	
◇	Q107	48T57805F04	2SD1302	
■	Q107	48T57805F04	2SD1302	
□	Q107	48T57805F04	2SD1302	
◆	Q108	48T57805F04	2SD1302	
◇	Q108	48T57805F04	2SD1302	
■	Q108	48T57805F04	2SD1302	
□	Q108	48T57805F04	2SD1302	
	Diodes			
	D101	48S40477U01	1N4003	
	D102	48S40477U01	1N4003	
	D103	48S40477U01	1N4003	
	D104	48S40477U01	1N4003	
	D105	48S40477U01	1N4003	
	D106	48S40477U01	1N4003	
	D107	48S40477U01	1N4003	
	D108	48S40477U01	1N4003	
	ZD101	48T52740F02	ZEN. HZ33-2	
●	ZD102	48T52739F95	ZEN. HZ27-2	
▲	ZD102	48T52739F95	ZEN. HZ27-2	
◆	ZD102	48T68697F72	ZEN. HZS27EB1	
◇	ZD102	48T68697F72	ZEN. HZS27EB1	
■	ZD102	48T68697F72	ZEN. HZS27EB1	
□	ZD102	48T68697F72	ZEN. HZS27EB1	
	Capacitors			
●	C101	08T57437F09	CER.	0.01μF
▲	C101	08T57437F09	CER.	0.01μF
◆	C101	08T00196L01	CER.	0.01μF
◇	C101	08T00196L01	CER.	0.01μF
■	C101	08T00196L01	CER.	0.01μF

Note: ●:For Japanese model only (JA)
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others:Common

◆:For American model only (UZ)
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◇:For Canadian model only (UQ)
□:For England model only (AG)

Symbol No	Part No	Description		
Capacitors				
□ C101	08T00196L01	CER. 0.01 μF		
● C102	08T57437F09	CER. 0.01 μF		
▲ C102	08T57437F09	CER. 0.01 μF		
◆ C102	08T00196L01	CER. 0.01 μF		
◇ C102	08T00196L01	CER. 0.01 μF		
■ C102	08T00196L01	CER. 0.01 μF		
□ C102	08T00196L01	CER. 0.01 μF		
E101	23T00133L38	ELY. 470 μF/50V		
E102	23T00181L23	ELY. 3300 μF/16V		
● C103	08T50579F13	TF. 0.1 μF		
▲ C103	08T50579F13	TF. 0.1 μF		
◆ C103	08T57851F13	TF. 0.1 μF		
◇ C103	08T57851F13	TF. 0.1 μF		
■ C103	08T57851F13	TF. 0.1 μF		
□ C103	08T57851F13	TF. 0.1 μF		
E103	23T00181L73	ELY. 100 μF/100V		
◆ C104	08T94422F01	CER. 0.47 μF		
◇ C104	08T94422F01	CER. 0.47 μF		
■ C104	08T94422F01	CER. 0.47 μF		
□ C104	08T94422F01	CER. 0.47 μF		
E104	23T00181L77	ELY. 470 μF/100V		
E105	23T00133L38	ELY. 470 μF/50V		
E106	23T00181L77	ELY. 470 μF/100V		
E107	23T00137L13	ELY. 33 μF/160V		
E108	23T00137L13	ELY. 33 μF/160V		
◆ E109	23T00180L25	ELY. 10 μF/50V		
◇ E109	23T00180L25	ELY. 10 μF/50V		
■ E109	23T00180L25	ELY. 10 μF/50V		
□ E109	23T00180L25	ELY. 10 μF/50V		
◆ E110	23T00180L23	ELY. 3.3 μF/50V		
◇ E110	23T00180L23	ELY. 3.3 μF/50V		
■ E110	23T00180L23	ELY. 3.3 μF/50V		
□ E110	23T00180L23	ELY. 3.3 μF/50V		
E111	23T00180L08	ELY. 33 μF/16V		
E112	23T00180L08	ELY. 33 μF/16V		
E113	23T00180L24	ELY. 4.7 μF/50V		
E114	23T00180L24	ELY. 4.7 μF/50V		
Jacks				
J101	09T15974W01	2P T6302-D105U		
J102	09T15974W01	2P T6302-D105U		
Coil				
L101	24T82315F01	LINE FK0B160MH02		
Switch				
S101	40T15820W01	PUSH POWER (Power)		

Symbol No	Part No	Description		
Volume Control				
VR101 ┬ M101 ┘	18T10803W02	Volume, RK16313MA		
Remote P.C. Board				
IC				
IC501	51T16094W01	GP1U521		
or	51T16094W02	GP1U521X		
Capacitor				
● C501	08T57298F01	CER. 0.1 μF		
▲ C501	08T57298F01	CER. 0.1 μF		
◆ C501	08T44979P14	CER. 0.1 μF		
◇ C501	08T44979P14	CER. 0.1 μF		
■ C501	08T44979P14	CER. 0.1 μF		
□ C501	08T44979P14	CER. 0.1 μF		
LED				
LD501	48T60947F05	SLH-34VR3F (RED)		
Tube P.C. Board 1				
Resistars				
R705	06T92261F26	MF. 2.4 ohm 2W		
R706	06T92261F26	MF. 2.4 ohm 2W		
Tube P.C. Board 2				
Capacitors				
C401A	08T00019L10	MTL. 2.2 μF		
C401B	08T00019L06	MTL. 1 μF		
E401	23T00137L12	ELY. 22 μ F/160V		
C402A	08T00019L10	MTL. 2.2 μF		
C402B	08T00019L06	MTL. 1 μF		
E402	23T00137L12	ELY. 22 μ F/160V		
C403	08T00019L02	MTL. 0.22 μF		
C404	08T00019L02	MTL. 0.22 μF		
C405	08T00151L17	P.P 2200pF		
C406	08T00151L17	P.P 2200pF		
FL/Key Board P.C. Board				
Diodes				
D301	48T84758F01	1SS270		
D302	48T84758F01	1SS270		
D303	48T84758F01	1SS270		
D304	48T84758F01	1SS270		
D305	48T84758F01	1SS270		

Note: ●:For Japanese model only (JA)
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others: Common

◆:For American model only (UZ)
■:For West Germany model only (AD)
◇:For Canadian model only (UQ)
□:For England model only (AG)

Symbol No	Part No	Description
D306	48T84758F01	1SS270
D307	48T84758F01	1SS270
D308	48T84758F01	1SS270
D309	48T84758F01	1SS270
D310	48T84758F01	1SS270
D311	48T84758F01	1SS270
D312	48T84758F01	1SS270
Switchs		
S301	40T83324F11	Tact SKHHAP (REPEAT)
S302	40T83324F11	Tact SKHHAP (6)
S303	40T83324F11	Tact SKHHAP (0)
S304	40T83324F11	Tact SKHHAP (A-PAUSE)
S305	40T83324F11	Tact SKHHAP (7)
S306	40T83324F11	Tact SKHHAP (1)
S307	40T83324F11	Tact SKHHAP (A-SCN)
S308	40T83324F11	Tact SKHHAP (8)
S309	40T83324F11	Tact SKHHAP (2)
S310	40T83324F11	Tact SKHHAP (M-CHECK)
S311	40T83324F11	Tact SKHHAP (9)
S312	40T83324F11	Tact SKHHAP (3)
S313	40T83324F11	Tact SKHHAP (RANDOM)
S314	40T83324F11	Tact SKHHAP (10)
S315	40T83324F11	Tact SKHHAP (4)
S316	40T83324F11	Tact SKHHAP (EDIT)
S317	40T83324F11	Tact SKHHAP (+10)
S318	40T83324F11	Tact SKHHAP (5)
S319	40T83324F11	Tact SKHHAP (STOP)
S320	40T83324F11	Tact SKHHAP (CLEAR)
S321	40T83324F11	Tact SKHHAP (PAUSE)
S322	40T83324F11	Tact SKHHAP (PROGRAM)
S323	40T83324F11	Tact SKHHAP (PLAY)
S324	40T83324F11	Tact SKHHAP (OPEN/CLOSE)
S325	40T83324F11	Tact SKHHAP (SKIP+UP)
S326	40T83324F11	Tact SKHHAP (BACKWORD)
S327	40T83324F11	Tact SKHHAP (FORWORD)
S328	40T83324F11	Tact SKHHAP (SKIP-DOWN)
S329	40T83324F11	Tact SKHHAP (DISP.ADJ)
S330	40T83324F11	Tact SKHHAP (TIME-DISP)
Fade P.C. Board		
S901	40T83324F11	Tact SKHHAP (T.FADE-OUT)
S902	40T83324F11	Tact SKHHAP (VOL.DOWN)
S903	40T83324F11	Tact SKHHAP (VOL.UP)
S904	40T83324F11	Tact SKHHAP (FADE-OUT)

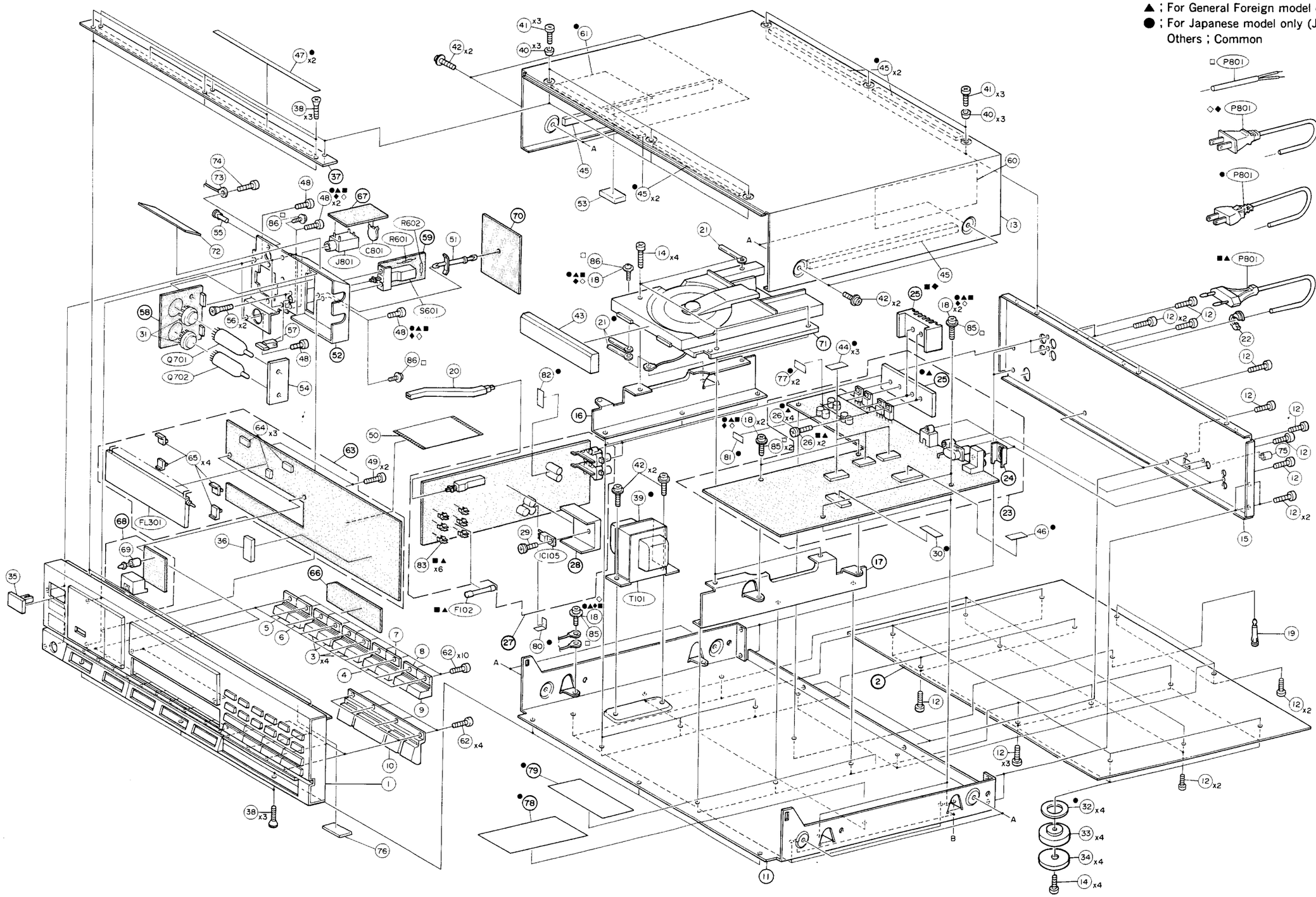
Symbol No	Part No	Description
Miscellaneous		
● C801	08T57298F01	Cap., Cer. 0.1μF
▲ C801	08T57298F01	Cap., Cer. 0.1μF
◆ C801	08T44979P14	Cap., Cer. 0.1μF
◇ C801	08T44979P14	Cap., Cer. 0.1μF
■ C801	08T44979P14	Cap., Cer. 0.1μF
□ C801	08T44979P14	Cap., Cer. 0.1μF
FL301	65T15386W01	FL, Display FV335G
▲ F102	65T42077U11	Fuse, Semko 315mA
■ F102	65T42077U11	Fuse, Semko 315mA
□ F102	65T42077U11	Fuse, Semko 315mA
IC105	51T16168W01	IC. μPC2412HF
J801	09T66672F01	J90K, Head Phone
● P801	28T67434F01	Plug, AC Cord
▲ P801	28T43812P04	Plug, AC Cord
■ P801	28T43812P04	Plug, AC Cord
□ P801	28T44061F05	Plug, AC Cord
◆ P801	28T55335F02	Plug, AC Cord
◇ P801	28T55335F02	Plug, AC Cord
Q701	65T00091L01	Tube (6CG7)
Q702	65T00091L01	Tube (6CG7)
R601	06T92262F23	Res, MF 1.8 ohm 3W
R602	06T92262F23	Res, MF 1.8 ohm 3W
S601	40T15685W01	SW. Push (Pre-Heat)
● T101	25T16178W01	Trans, Power
▲ T101	25T16178W02	Trans, Power
■ T101	25T16178W02	Trans, Power
□ T101	25T16178W02	Trans, Power
◆ T101	25T16178W03	Trans, Power
◇ T101	25T16178W03	Trans, Power

Note: ● : For Japanese model only (JA)
▲ : For General Foreign model only (EK)
Ohter : Common

◆:For American model only (UZ)
■:For West Germany model only (AD)
◇:For Canadian model only (UQ)
■:For England model only (AG)

Exploded View(Cabinet)

Note : ◇ ; For Canadian model only (UQ)
□ ; For England model only (AG)
◆ ; For American model only (UZ)
■ ; For West Germany model only (AD)
▲ ; For General Foreign model only (EK)
● ; For Japanese model only (JA)
Others ; Common



Cabinet Assembly Parts List

Note : The parts witout part mubers are not supplied.

Symbol No	Index	Part No	Description
● 1	5-C	01V00280S01	Assy., Panel Front
▲ 1	5-C	01V00281S01	Assy., Panel Front
◆ 1	5-C	01V00281S01	Assy., Panel Front
◇ 1	5-C	01V00281S01	Assy., Panel Front
■ 1	5-C	01V00281S01	Assy., Panel Front
□ 1	5-C	01V00281S01	Assy., Panel Front
3	4-B	36A11877W01	Knob, Display
4	4-B	36A11877W04	Knob, Push Backward
5	4-B	36A11877W02	Knob, Push VR Down
6	4-C	36A11877W03	Knob, Push VR Up
7	4-C	36A11877W05	Knob, Push Forward
8	4-C	36A11877W06	Knob, Skip Down
9	5-C	36A11877W07	Knob, Skip Up
10	5-C	36B11878W01	Knob, Function
● 12		03S82672F33	Screw, Bind (M3×8)
▲ 12		03S82672F20	Screw, Bind (M3×8)
■ 12		03S82672F20	Screw, Bind (M3×8)
□ 12		03S82672F20	Screw, Bind (M3×8)
◆ 12		03S82672F20	Screw, Bind (M3×8)
◇ 12		03S82672F20	Screw, Bind (M3×8)
13	2-F	15C11879W01	Cover, Top
14	2-G	03S44205G28	Screw, Pan (M4×12)
● 15	4-G	15D11880W01	Cover, Rear
▲ 15	4-G	15D11880W02	Cover, Rear
■ 15	4-G	15D11880W02	Cover, Rear
□ 15	4-G	15D11880W02	Cover, Rear
◆ 15	4-G	15D11880W03	Cover, Rear
◇ 15	4-G	15D11880W03	Cover, Rear
18	3-D	03S40018G08	Screw, Tpg (M3×8)
19	4-G	43T92160F04	Spacer, PCB 18R
20	3-C	45B57186F01	Lever, Knob
● 21	3-D	29C41045P03	Lug, Wrap Around
▲ 21	3-D	29C41045P03	Lug, Wrap Around
◆ 21	3-D	29C41045P03	Lug, Wrap Around
■ 21	3-D	29C41045P03	Lug, Wrap Around
◇ 21	3-D	29C41045P03	Lug, Wrap Around
□ 21	3-D	29C41045P05	Lug, Wrap Around
▲ 22	3-G	43T16093W01	Support, Cord
● 22	3-G	43B41625J02	Support, Cord
◆ 22	3-G	43B41625J02	Support, Cord
◇ 22	3-G	43B41625J02	Support, Cord
■ 22	3-G	43B41625J02	Support, Cord
□ 22	3-G	43B41625J02	Support, Cord
26	3-E	03D40014G22	Screw, W/Washer (M3×8)
29	4-C	03C40121T05	Screw, W/Washer (M3×8)

Symbol No	Index	Part No	Description
● 30	4-F	14S94461F85	Insulator, Cover
31	3-A	09T64527F02	Socket, Tube
● 32	5-F	75A13129W01	Pad, Trannleg
▲ 33	5-F	75A67063F03	Trannleg
■ 33	5-F	75A67063F03	Trannleg
□ 33	5-F	75A67063F03	Trannleg
◆ 33	5-F	75A67063F03	Trannleg
◇ 33	5-F	75A67063F03	Trannleg
● 33	5-F	75B80720F04	Trannleg, set G
▲ 34	5-F	75A94848F01	Pad, Felt
■ 34	5-F	75A94848F01	Pad, Felt
□ 34	5-F	75A94848F01	Pad, Felt
◆ 34	5-F	75A94848F01	Pad, Felt
◇ 34	5-F	75A94848F01	Pad, Felt
● 34	5-F	75A80719F01	Pad, Trannleg
35	4-A	36A67330F01	Knob, Power
● 36	4-B	75S72374F91	Cushion Rubber
38		03S44205G50	Screw,Countersink(3M×6)
● 39	3-D	14S20478W02	Insulator, Cover
40		13A13279W01	ESC, Screw, (N)
41		03S52360F36	Screw, Bind (M4×8)
42	1-C	03S40036U01	Screw, W/Washer (M4×8)
43	3-D	63B11870W01	Tray, Panel
● 44	3-E	14S94461F86	Insulator, Cover
45	1-E	75S12196W27	Cushion, Rubber
● 46	4-F	14S94461F87	Insulator, Cover
● 47	1-B	14S96390F69	Insulator, Cover
48	3-B	03S63857F23	Screw, Tapping (M2.6×8)
49	3-C	03S40018G17	Screw, Tapping (M2.6×8)
50	3-C	30T15818W01	Wire, Push Paraller 29P
51	2-C	43T16241W08	Support, PCB
53	2-D	75S12196W40	Cushion, Rubber
54	3-B	75A67341F01	Cushion, Tube
55	2-B	05B41635J03	Rivet, Push
56	3-B	03S43997P42	Screw,Countersink(M3×5)
57	3-B	36A67333F01	Knob, Push
● 60	2-F	14S96390F70	Insulator, Cover
● 61	1-D	14S20478W01	Insulator, Cover
62		03S40012G18	Screw, Tapping (M2.6×6)
64	3-B	75S12196F21	Cushion, Rubber

Symbol No	Index	Part No	Description
65	3-B	07A83876F01	Support, FL
69	4-A	43A41837U05	Spacer, SW
72	2-B	14S96390F58	Insulator, Cover
73	2-B	01T84733F11	Assy., Lug Wire
74	2-B	03S44205G06	Screw, Pan (M3.5×6)
75		16T82537F01	Cap, Pin Jack
76	5-C	75S72374F75	Cushion, Rubber
● 77	3-E	14S94461F86	Insulator, Cover
● 80	4-C	14S96390F99	Insulator, Cover
● 81	3-D	14S96390F98	Insulator, Cover
● 82	3-D	14S94461F87	Insulator, Cover
■ 83	4-C	09T51410F01	Holder, Fuse
□ 83	4-C	09T51410F01	Holder, Fuse
▲ 83	4-C	09T51410F01	Holder, Fuse
□ 84		03S44205G67	Screw, Bind. (M3×6)
□ 85		03S42723U01	Screw, Cap. (M3×6)
□ 86		03S71677F06	Screw, Flange. (M2.6×6)

Symbol No	Index	Part No	Description

Note : ● : For Japanese model only (JA)
▲ : For General Foreign model only (EK)
Ohters : Common

◆:For American model only (US)
■:For West German model only (AD)
◇:For Canadian model only (UQ)
□:For England model only (AG)

Note : ● : For Japanese model only (JA)
▲ : For General Foreign model only (EK)
Ohters : Common

◆:For American model only (US)
■:For West German model only (AD)
◇:For Canadian model only (UQ)
□:For England model only (AG)

Packing Assembly Parts List

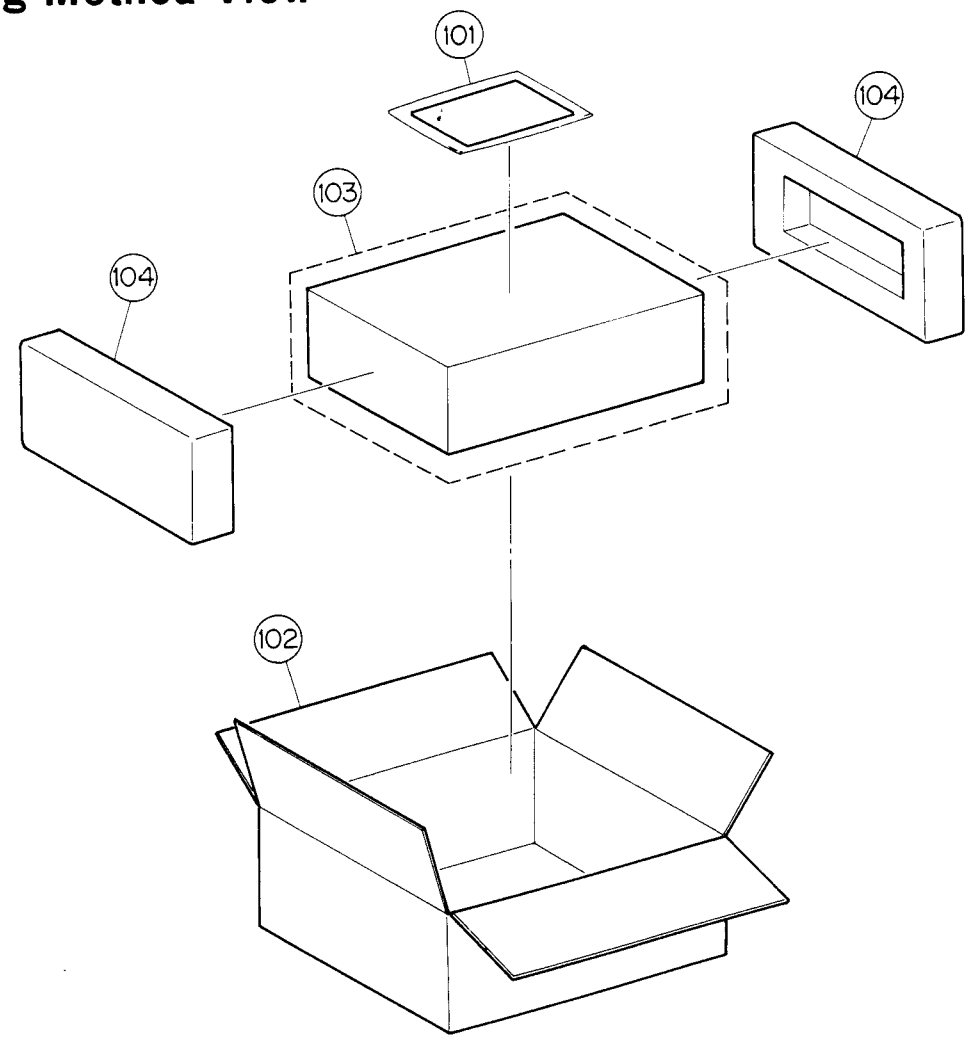
Symbol No		Part No	Description		
●	101-1	68P96552F25	Owners, Manual		
◆	101-1	68P96552F26	Owners, Manual		
◇	101-1	68P96552F27	Owners, Manual		
▲	101-1	68P96552F27	Owners, Manual		
■	101-1	68P96552F27	Owners, Manual		
□	101-1	68P96552F27	Owners, Manual		
	101-2	01T82091F01	Assy., Mini Plug Cord		
●	101-3	01T16150W01	Unit, Remocon		
▲	101-3	01T16150W02	Unit, Remocon		
■	101-3	01T16150W02	Unit, Remocon		
◆	101-3	01T16150W02	Unit, Remocon		
◇	101-3	01T16150W02	Unit, Remocon		
□	101-3	01T16150W02	Unit, Remocon		

Symbol No		Part No	Description		
	101-4	60T58064F01	Battery, SUM-3		
	101-5	28T67347F04	Plug, Output		
◆	101-6	01T84773F01	Fiber, TOCP172-150CB		
◇	101-6	01T84773F01	Fiber, TOCP172-150CB		
■	101-6	01T84773F01	Fiber, TOCP172-150CB		
●	102	56S10005W27	Carton, Packing		
◆	102	56S10005W27	Carton, Packing		
▲	102	56S10005W27	Carton, Packing		
■	102	56S10005W27	Carton, Packing		
□	102	56S10005W27	Carton, Packing		
◇	102	56S10005W28	Carton, Packing		
	103	56B40442T08	Packing, Front Frame		
	104	56D11887W01	Tray, Packing		

Note : ● : For Japanese model only (JA)
▲ : For General Foreign model only (EK)
Ohters : Common

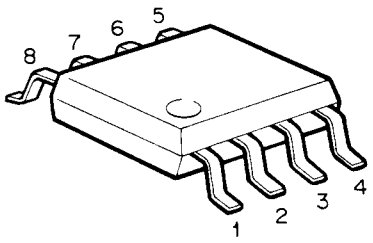
◆:For American model only (UZ)
■:For West German model only (AD)
◇:For Canadian model only (UQ)
□:For England model only (AG)

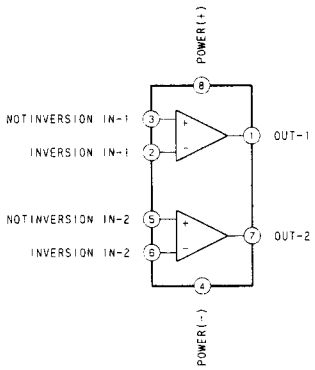
Packing Method View



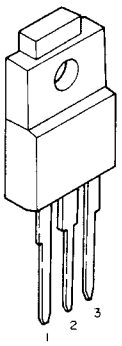
Semi-Conductor Lead Indentifications

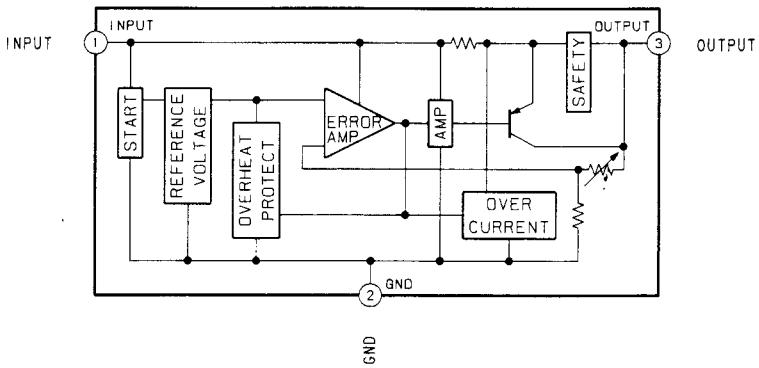
M5238P : IC101, 102



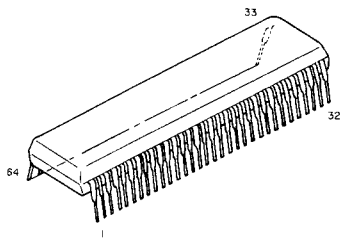


μPC2412HF : IC105



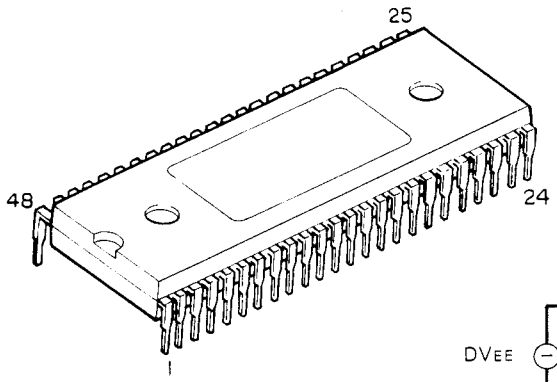


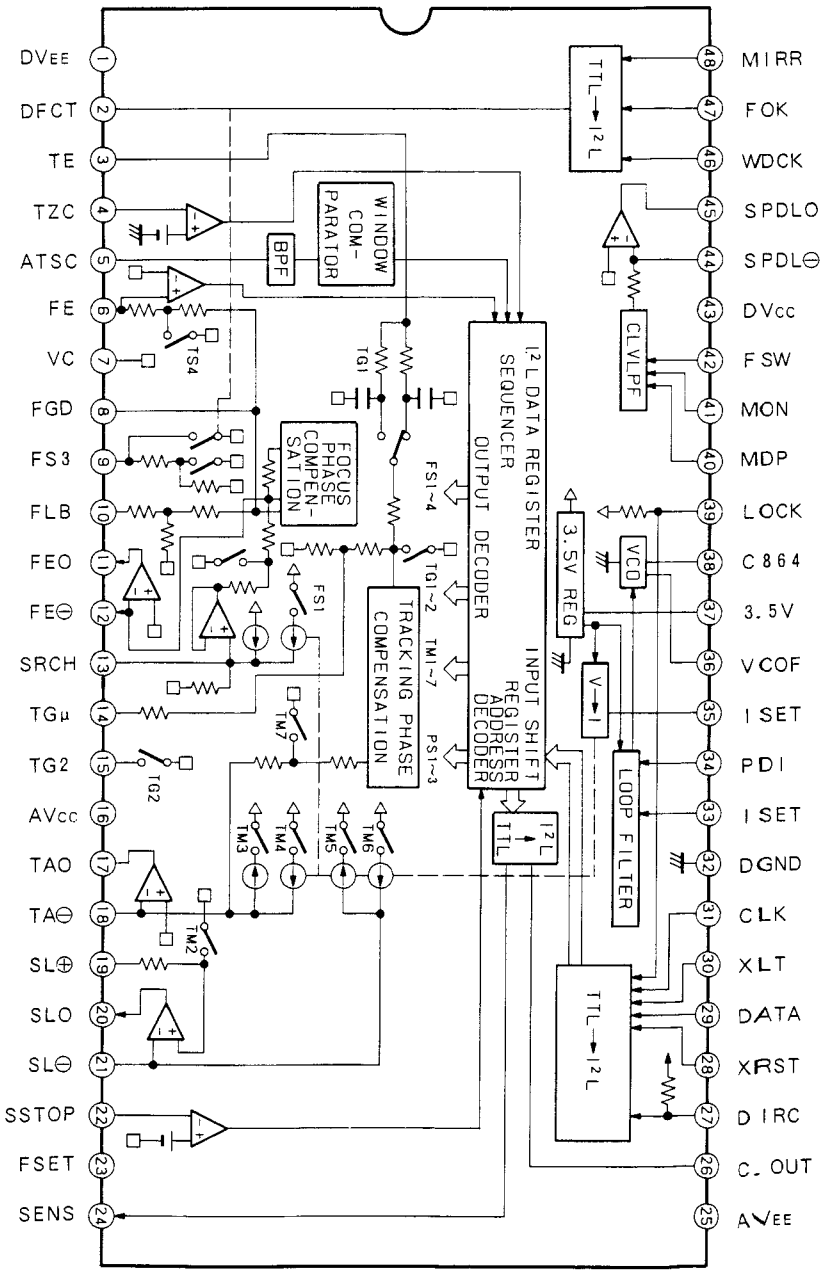
15365W02 : IC201 (JA/EK Model only)
15749W02 : IC201 (AD/UZ/AG/UQ Model only)



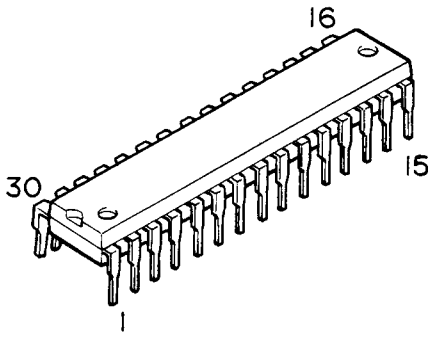
1	SEG4	17	EMPHA	33	SQ CK	49	OSC
2	SEG3	18	GFS	34	SUBQ	50	GND
3	SEG2	19	-35V	35	FOK	51	GND
4	SEG1	20	A.MUTE	36	PWM	52	NC
5	SEG0	21	CLOSE SW	37	SENS	53	+5V
6	DIG0(1G)	22	OPEN SW	38	NC	54	VOL CP
7	DIG1(2G)	23	LD ON	39	MUTE	55	VOL UP
8	DIG2(3G)	24	XRST	40	RHT SW	56	VOL DOWN
9	DIG3(4G)	25	XLT	41	CLOSE	57	SEG12
10	DIG4(5G)	26	DATA	42	OPEN	58	SEG11
11	DIG5(6G)	27	CLK	43	SWRTN	59	SEG10
12	DIG6(7G)	28	POWER	44	KRTN2	60	SEG9
13	DIG7(8G)	29	SCOR	45	KRTN1	61	SEG8
14	DIG8(9G)	30	RMC	46	KRTN0	62	SEG7
15	DIG9(10G)	31	NC	47	RESET	63	SEG6
16	DIMM	32	+5V	48	OSC	64	SEG5

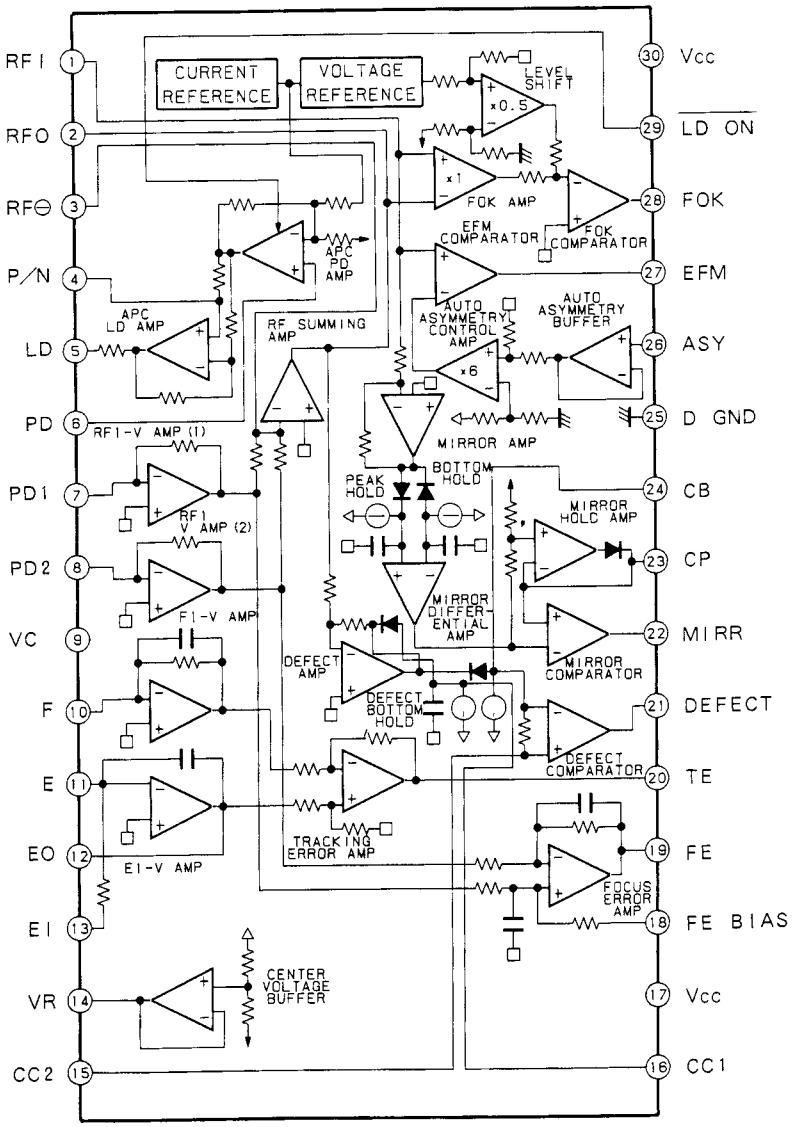
CXA1082BS : IC202



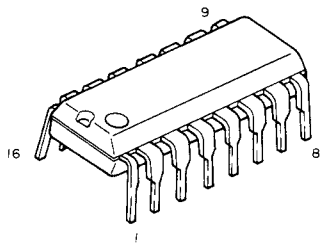


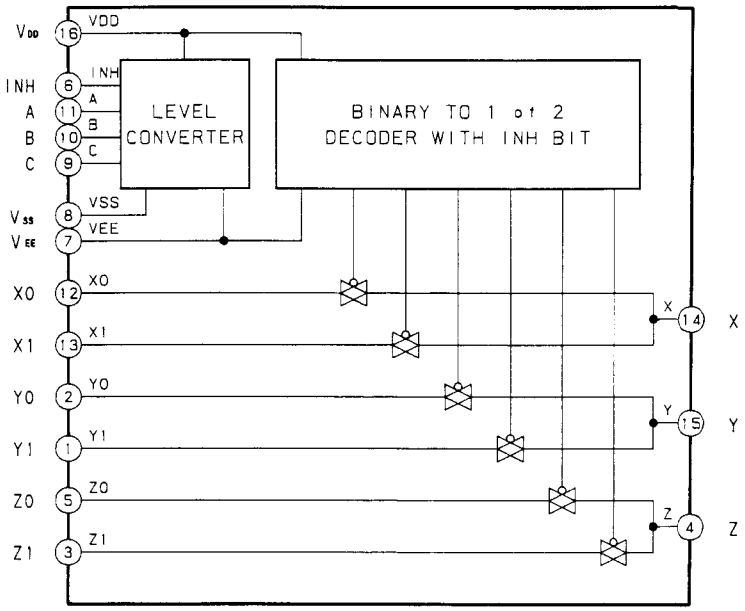
CXA1081S : IC203



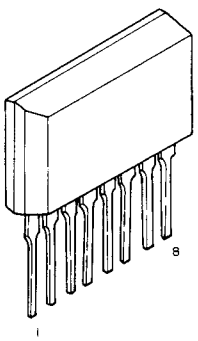


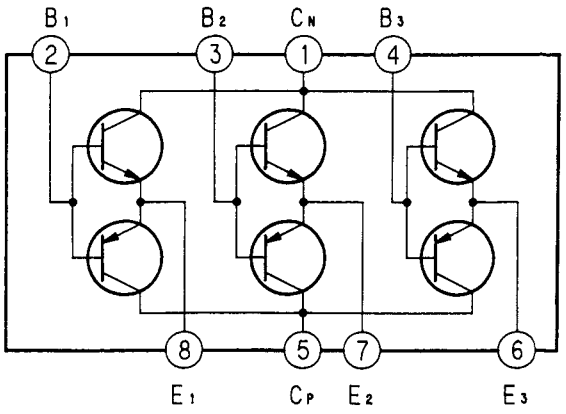
MC14053 : IC204 (JA/EK Model only)





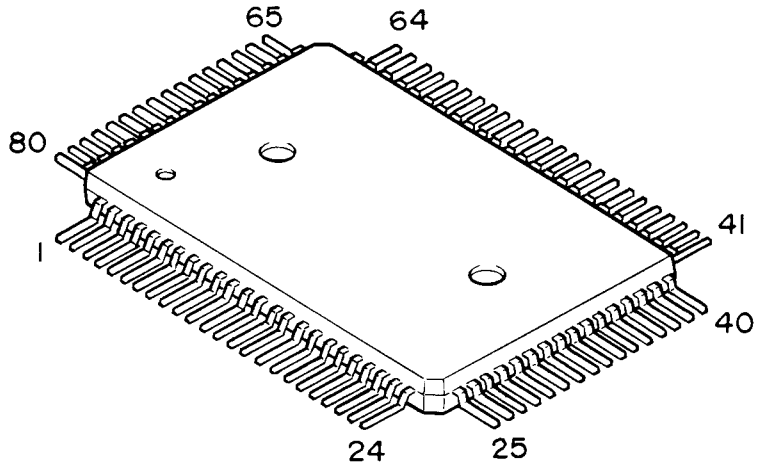
STA341M : IC204 (AD/UZ/AG/UQ Model only)

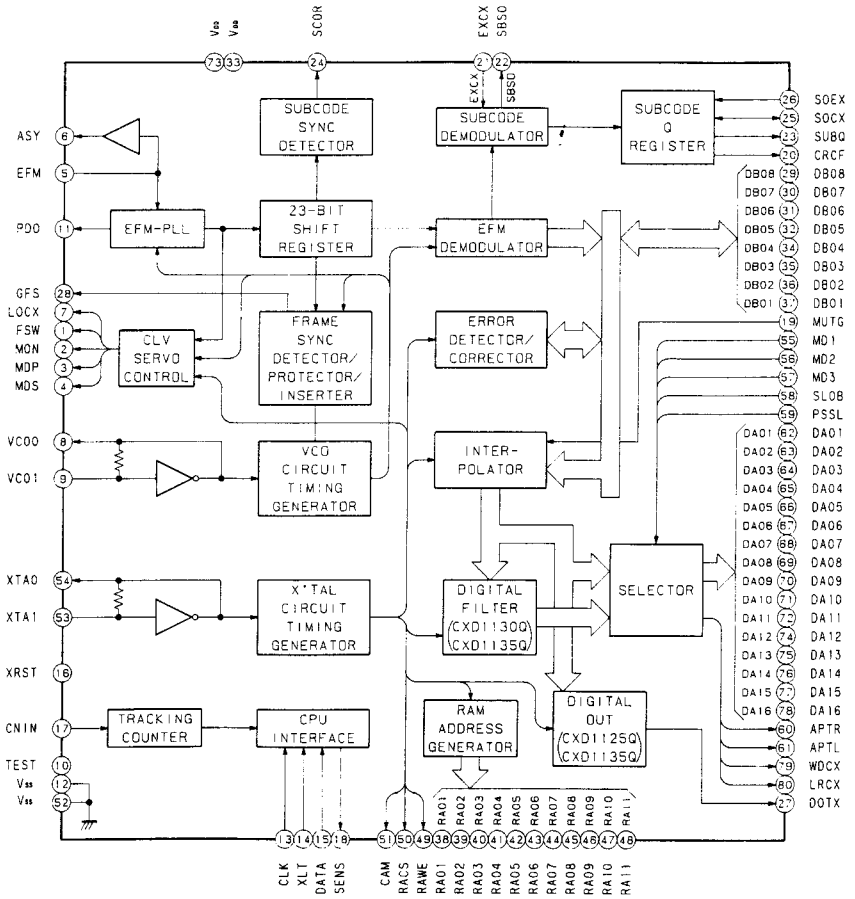




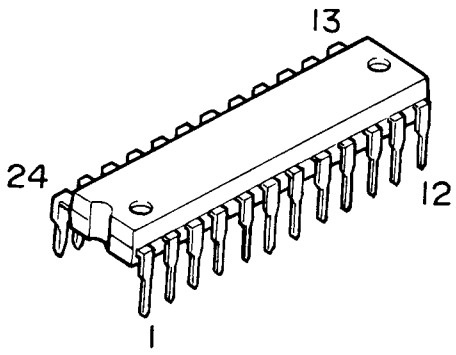
B. Base
C. Collector
E. Emitter

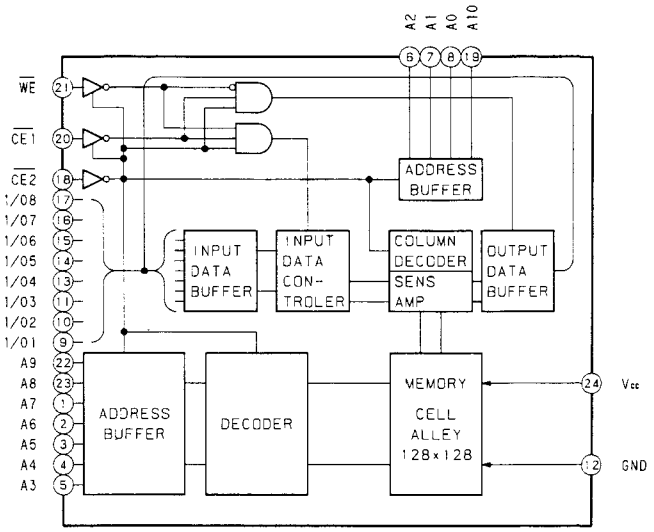
CXD1125QZ : IC205



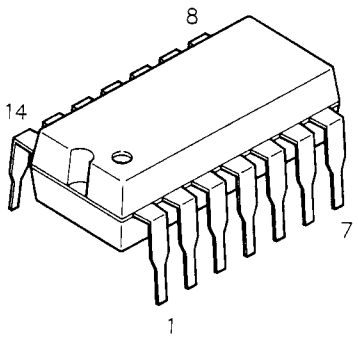


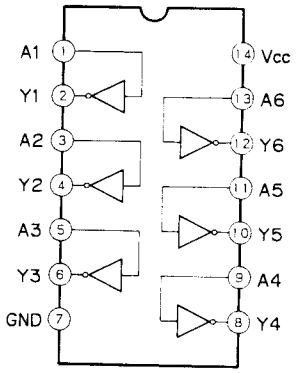
LC3516AS : IC206



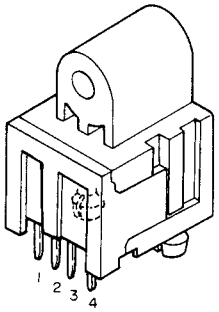


MC74HCU04 : IC207



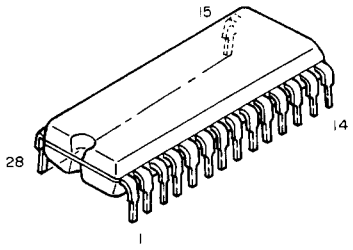


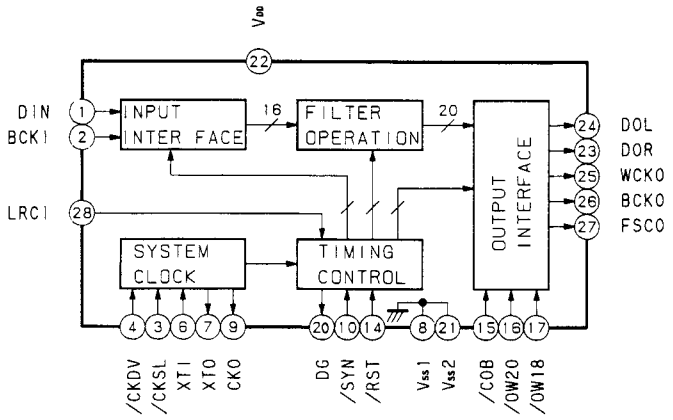
HFBR1550 : IC208



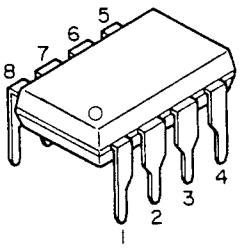
	Transmitter	Receiver
1	LED-Anode	V_{ccd}
2	LED-Cathode	V_{OUT}
3	N.C	GRD
4	N.C	V_{cca}

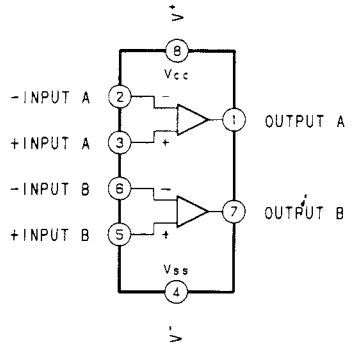
SM5813AP : IC209



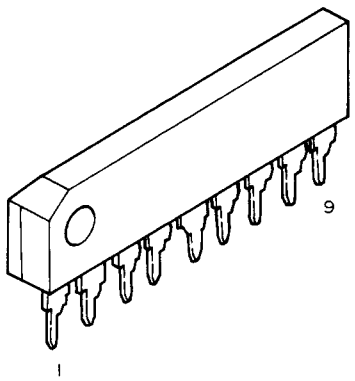


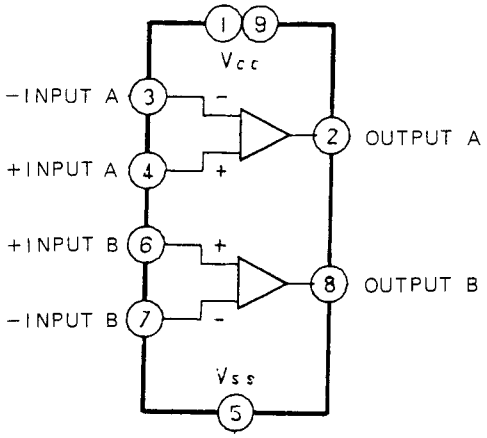
NJM2903D : IC210 (JA/EK Model only)



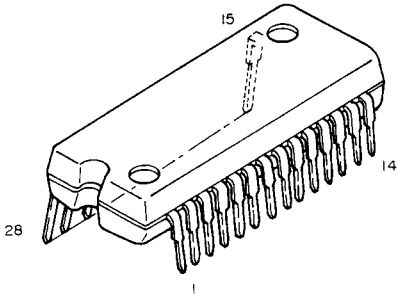


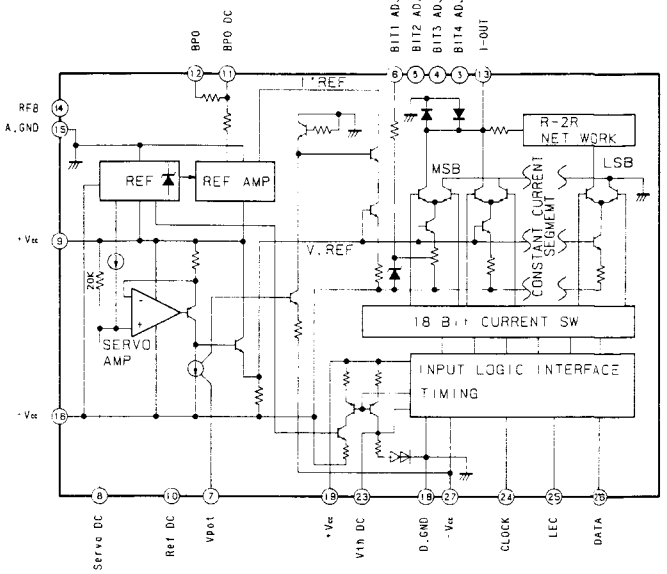
NJM2903S : IC210 (AD/UZ/AG/UQ Model only)



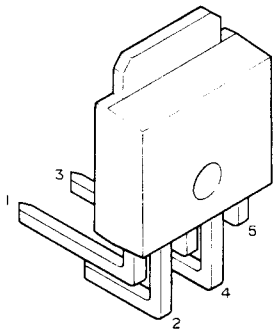


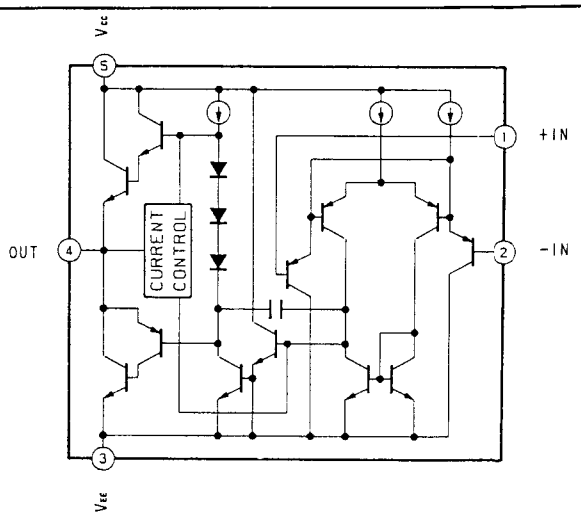
PCM701P : IC211, 212



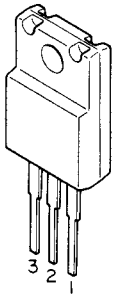


LA6501 : IC213, 218

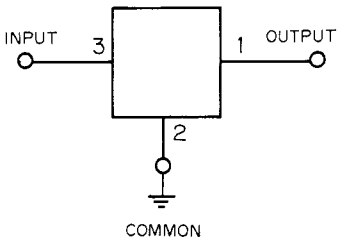




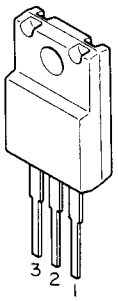
NJM7805 : IC214

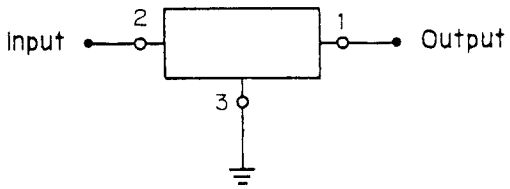


1. Output
2. Common
3. Input



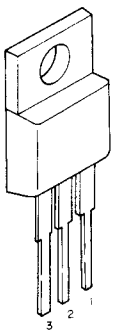
NJM7905 : IC215, IC217

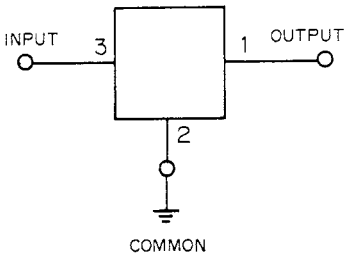




1. Output
2. Input
3. Common

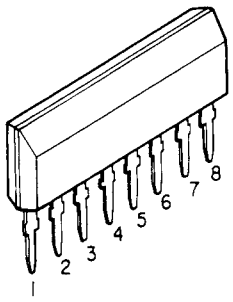
NJM7808 : IC216 (JA/EK Model only)
NJM7808FA : IC216 (AD/UZ Model only)

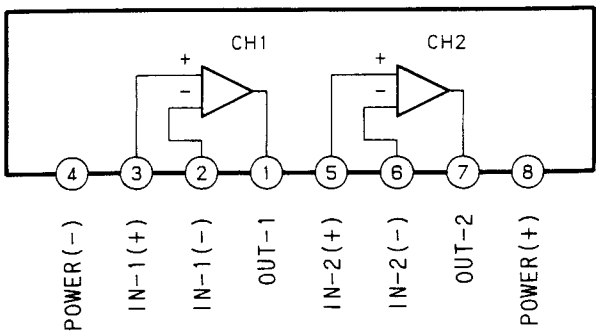




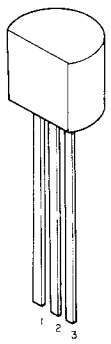
1. Output
2. Common
3. Input

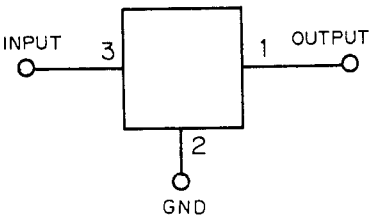
M5238L : IC219, 220





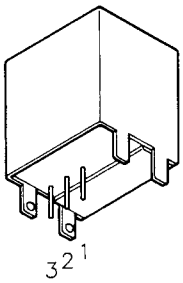
NJM78L05A : IC221

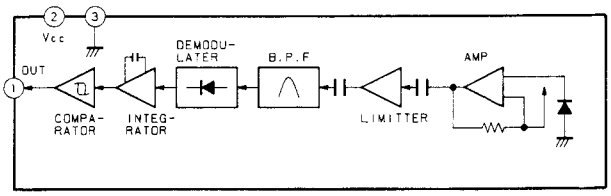




1. **Output**
2. **GND**
3. **Input**

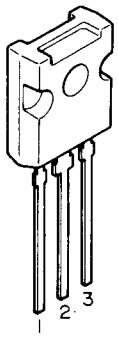
GP1U521 : IC501
or **GP1U521X**





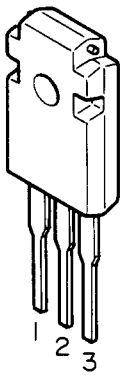
1. **V** $_{OUT}$
2. **V** $_{CC}$
3. **GND**

2SA1360 : Q101
2SC3421 : Q212
: Q214, 216, 218 (JA/EK Model only)
2SA1358 : Q213
: Q215, 217, 219 (JA/EK Model only)



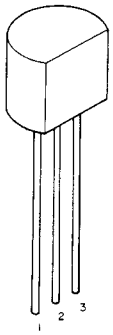
1. **Emitter**
2. **Collector**
3. **Base**

2SC3298 : Q102



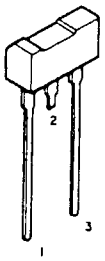
1. Base
2. Collector
3. Emitter

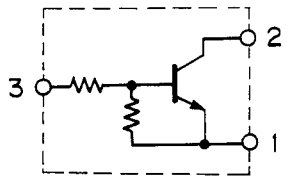
2SD1302 : Q103, 104, 105, 106, 221, 222
: Q107, 108 (AD/UZ/AG/UQ Model only)
2SA854Q : Q201
2SA950 : Q223 (AD/UZ/AG/UQ Model only)



1. Emitter
2. Collector
3. Base

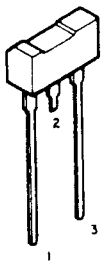
DTC114EL : Q204, 207, 208, 209
: Q224, 225 (AD/UZ/AG/UQ Model only)

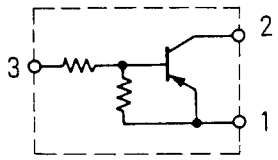




1. Emitter
2. Collector
3. Base

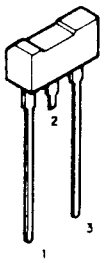
DTA114EL : Q205, 206





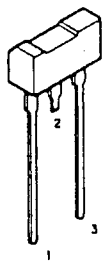
1. Emitter
2. Collector
3. Base

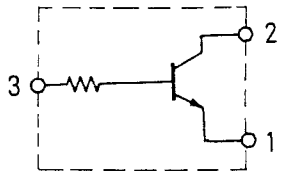
2SC4038 : Q210, 211
2SB1277 : Q220



1. Emitter
2. Collector
3. Base

DTC124TL : Q226 (AD/UZ/AG/UQ Model only)





1. Emitter
2. Collector
3. Base